VOLUME XXXI NUMBER THREE

THE NATIONAL GEOGRAPHIC MAGAZINE

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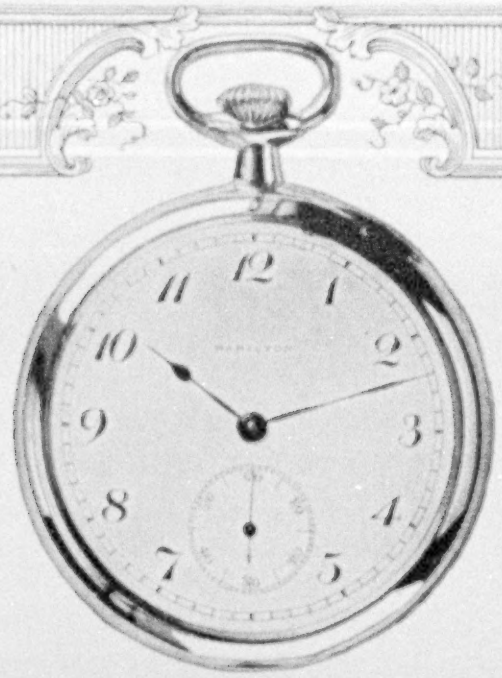

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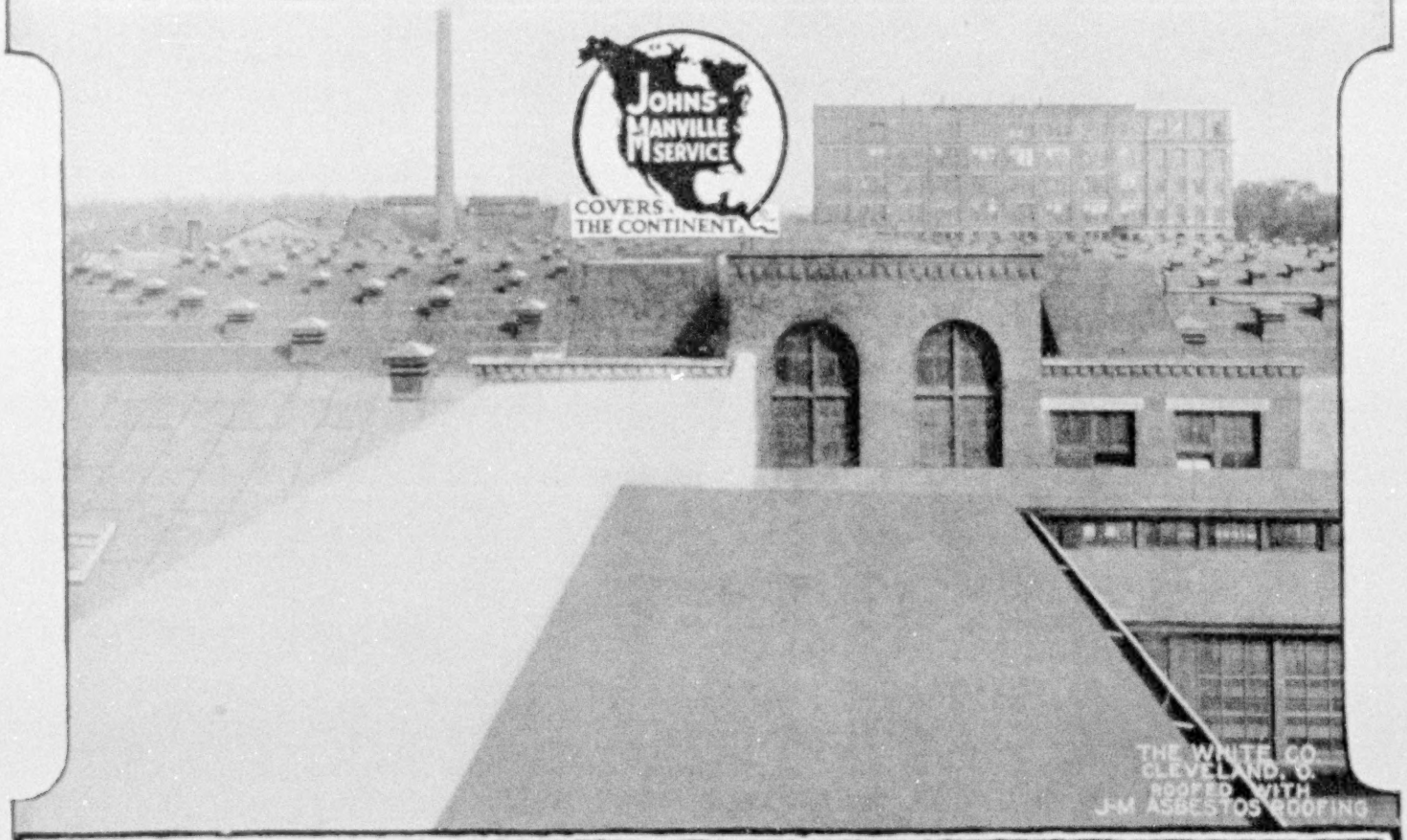

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Look for our label

It's the signature to your security; of style, of all-wool fabrics, of satisfaction guaranteed. Be sure you see it; a small thing to look for, a big thing to find.

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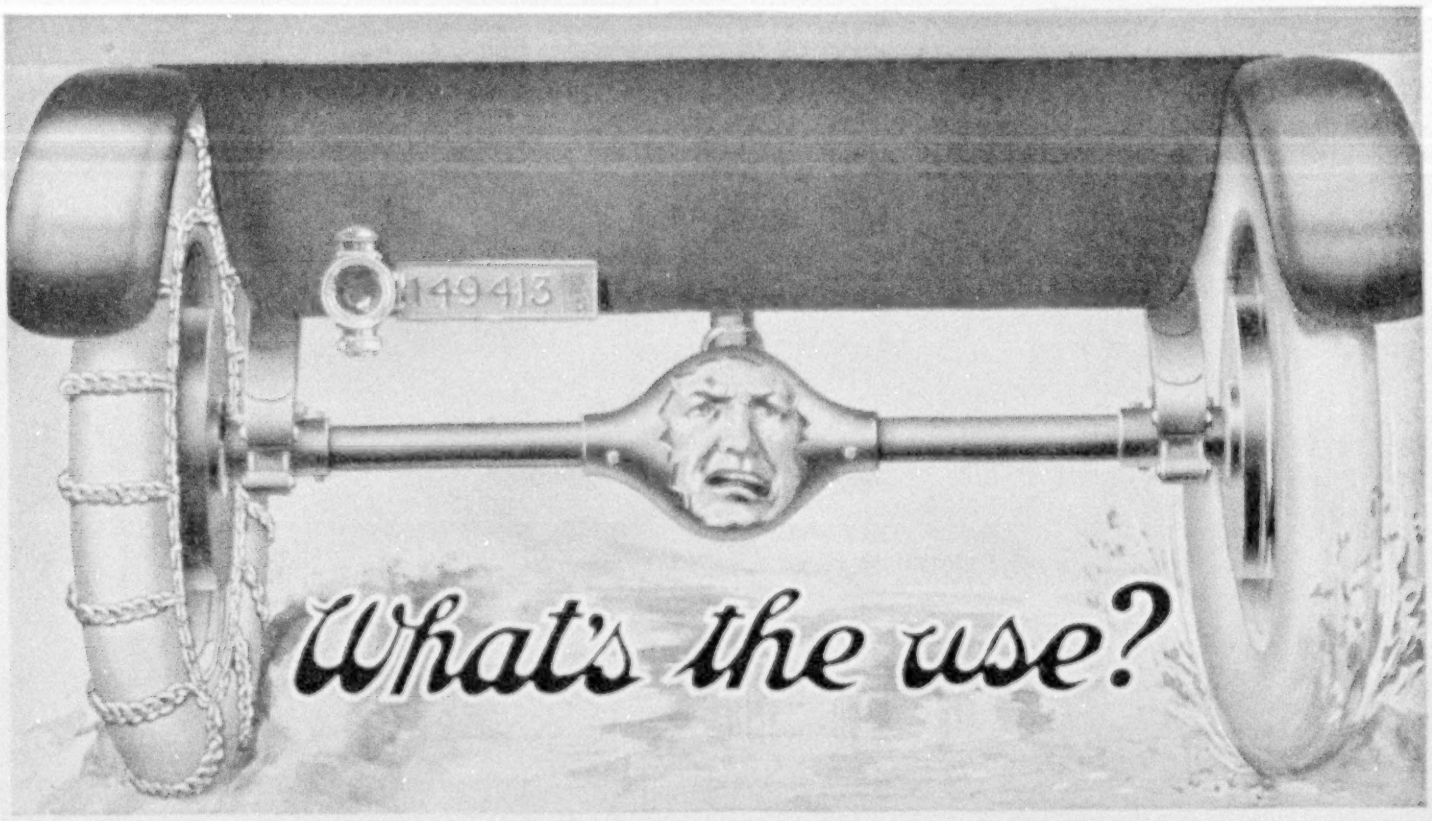
Good Clothes Makers



Two chains, one on each rear wheel, are absolutely necessary—

One is rather a detriment and in most cases is even inclined to accentuate the skid and throw the car out of balance.

Is it any wonder the differential looks pained and worried when inexperienced motorists insist upon working it overtime?

Do you know the purpose of the differential and how it operates?

Without it no motor car would be able to turn a corner *evenly* and smoothly.

Power is supposed to be transmitted evenly to both driving wheels. When either of these wheels meet with resistance, the ever watchful differential transmits that power to the other where there is less resistance.

Now, what is the result when a chain is used *on only one wheel?*

A certain amount of resistance or gripping.

So the power naturally goes to the other wheel and as this has no gripping surface it spins.

The specific purpose of the chain is thwarted, worse still, it has a natural tendency to accentuate the skid.

Furthermore, can't you see this spinning will unnecessarily *wear the tire* and throw your whole car out of alignment?

Suppose one of your brake rods smashed and only one remained effective. What would happen when you applied the one brake?

Your car would swerve, of course. An added uneven strain would be thrown upon the whole mechanism, doing probably irreparable damage.

The conditions are similar.

The necessity for brakes for both wheels and chains for both wheels is obvious and clearly defined.

If one chain would do the work, why use more?

But motorists and mechanics who are well posted *gaze with pity at the man who foolishly drives with only one chain* when two are absolutely necessary on the rear wheels and two on the front wheels are an added precaution.

Weed Chains for all Styles and Sizes of Tires are sold by Dealers Everywhere.

Sole Manufacturers of Weed Anti-Skid Chains

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"Mention the Geographic—It identifies you."

The Good Things Some Boys Get

In homes that serve Puffed Wheat and Rice, boys carry the grains at play.

Sometimes they are simply salted—sometimes doused with melted butter. And these bubble-like grains, toasted, flavory, crisp, and flaky, form real food confections.

Those Boys Say This:

Boys with Puffed Grains always treat other boys. And they say something like this:

"Why, we have Puffed Grains every day in our house. I get a dish every morning.

"I get them sometimes for supper, in a bowl of milk. Sister uses them in candy-making. And I get them like this after school.

"Sometimes it is Puffed Wheat, sometimes Puffed Rice, and sometimes it is Corn Puffs. But one is as good as another."

Children who get Puffed Grains talk about them. And children who don't, envy the rest.

For these are the foods that taste like nuts. That are airy and thin and flimsy. And that seem like confections served by the dishful.

Children who don't get Puffed Grains get nothing else that's like them. There is no other way to make whole grains into such inviting morsels.

Puffed Wheat

Puffed Rice

and Corn Puffs

Each 15c Except in Far West

The purpose of puffing, by Prof. Anderson's process, is to make whole grains wholly digestible. By terrific heat and shooting from guns, every food cell is exploded.

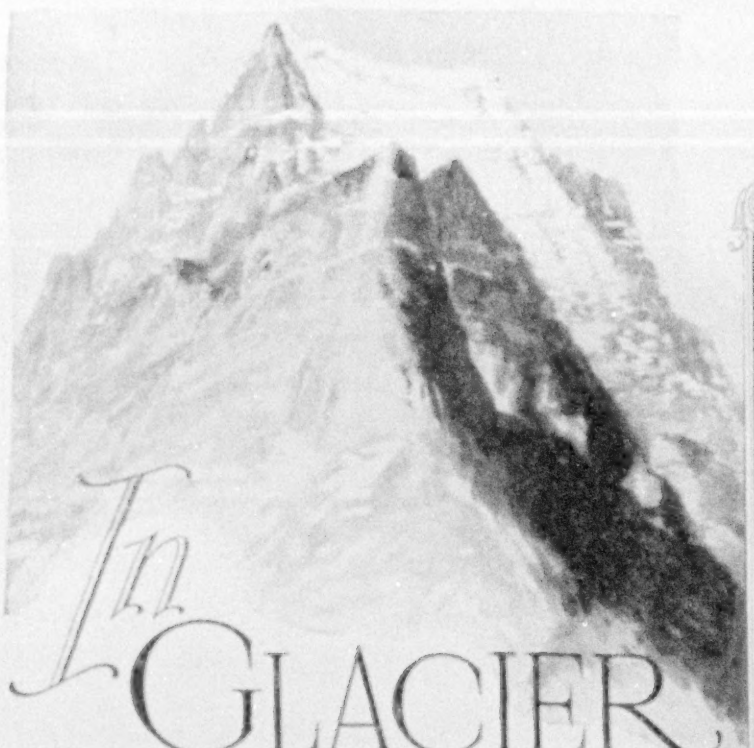
What cooking does in a partial way, this process does completely. Thus every element is made available, and every atom feeds.

People need whole-grain foods. But they need them so the whole grain will digest. Puffed Wheat and Rice supply them. So every dainty tidbit forms a perfect food. Let children eat all they will.

The Quaker Oats Company

Sole Makers

(1540)



In GLACIER NATIONAL PARK

AT GLACIER NATIONAL PARK refined hotel comforts contrast with Nature's wildest, most tremendous sights.

Last year thousands more tourists than in any previous year scaled its Alpine heights—fished its tumbling streams—rode by launch on its azure lakes—motored through its pine-laden valleys. Modern hotels-in-the-forest and chalets. Tepee camps. Vacations $1 to $5 per day.

Glacier Park is on the main trans-continental line of the Great Northern Railway. Visit Glacier National Park, the Spokane Country, and the wonderful Lake Chelan Region, directly en route to the Pacific Northwest.

A camping tour 'long the shores of Lake Chelan is a big experience. Then go on to Seattle, Tacoma, Puget Sound, Portland, Astoria, Vancouver, Victoria—each with a delightful resort-country of its own—and Alaska.

The twin Palaces of the Pacific—S. S. "Great Northern" and S. S. "Northern Pacific"—three times weekly between Portland, Astoria, and San Francisco. Folder on request.

Special round-trip fares to Glacier National Park, to the Pacific Northwest, Puget Sound, and Alaska. Write for Aeroplane map folder and illustrated descriptive Glacier National Park and Lake Chelan literature.

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The statements in this advertisement referring to performances of Hudson Super-Sixes in certified trials and in competition are approved as to facts.

Richard Kennerdell,
Chairman Contest Board, American Automobile Association.

The Long-Life Record
HUDSON SUPER-SIX

Will Hold First Place Forever, We Believe

One year of the Super-Six seems to mark it the permanent leading type. Many other sensations had their day and departed. But the Super-Six gains prestige every month. And it comes too close to a perfect motor to ever be far excelled.

For your own sake, don't get a wrong conception of the Hudson Super-Six.

It is a Six, but not like other Sixes. This basic invention, controlled by our patents, added 80 per cent to our six-type efficiency.

It does, in a better, simpler way, what we attempted in our Eights and Twelves. For we built those types for testing, as did others, when the seeming trend was that way.

This Problem Solved

The Super-Six gets its wondrous power, speed, and endurance by minimizing friction.

That's what every type attempted. That's why men once thought that V-types would supersede the Six. Vibration causes friction, and friction causes wear. And the type which brings vibration lowest will hold first place forever, just as now.

The Super-Six is that type. Every block test proves it. And a hundred road records confirm it. It now holds every worth-while record of endurance and speed for a stock car.

Another Possible Error

Some men still tell Hudson dealers that our records show qualities not wanted. They cannot use such speed, such power. "And other cars are good enough hill-climbers."

But you must presume we know that.

We have not increased our motor size. We are using a small, light Six—exactly the size we used before this invention. And a size now very common.

The Super-Six principle gets from that size all of this extra efficiency. It does it by saving friction. Would you have less speed, less power in a motor, because of more friction and wear?

To Double Endurance

The Super-Six was invented to double indurance. That it makes the car a record-breaker is simply incidental.

The records we value most are long-distance records. Under sanction of the Contest Board of the American Automobile Association, the Super-Six broke the 24-hour stock chassis record by 328 miles. And in the famous non-stock Pike's Peak Hill Climb, sanctioned by the Contest Board of the American Automobile Association, a Super-Six Special made the best time through endurance.

A Super-Six Touring Car twice broke the Transcontinental record in one continuous 7000-mile round trip. All Super-Six speed records have been made because of endurance.

It Offers You This

It offers you a car which, by a hundred records, is the most capable car in the world.

It offers you endurance, far beyond any previous attainment.

It offers you pride of ownership—the feeling that you rule the road. The knowledge that yours is the greatest car in performance that's built.

It offers you beauty and luxury which make the car look its supremacy.

It offers you, in our latest models, a wonderful gasoline saver.

Will you want a car which offers less when you buy a car to keep?

Phaeton, 7-passenger	$1650	Town Car Landaulet	$3025
Cabriolet, 3-passenger	1950	Limousine	2925
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HUDSON MOTOR CAR COMPANY, DETROIT, MICHIGAN

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For the first time in its history, the United States has now become a creditor nation, and by meeting the needs of other nations is able to strengthen its own financial and commercial position.

Every citizen is concerned in the situation presented and its relation to his own affairs.

How American Wars since 1776 have been financed and these War debts discharged; the economic effect of War loans in this country and in Europe; lessons taught by experience and the opportunities offered for the future are described in a booklet entitled "War Loans and the United States", issued and sent upon request by the

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Capital and Surplus - - - - -	$40,000,000
Resources more than - - - -	$500,000,000

Builds city of 75,000

There is a busy town in the Middle West that has been described as being literally intoxicated with an all-pervading prosperity.

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This boom—this city and fortune building—is the work of one man. Yet, big as this work is, it is only one phase of this man's gigantic enterprises.

Today he is the directing head of several industries representing an annual output of $200,000,000, employing 36,500 men.

This man started in a humble way as an employee in a lumber mill. At twenty-one he said he had mastered the business and was ready for something else.

A number of industries required bolstering. He gave them new life. The town water-works were in a bad way. He put them on a sound basis.

Later he organized a carriage company. Then a motor-car company. In ten years he was a multi-millionaire and was building fortunes for other men.

He knew the underlying principles of business success

Some men will tell you his success was due to a series of "lucky breaks." Others will say he is one of the men who get all the opportunities.

But the fact is, this man started at scratch—he was born with nothing more than most of us are born with.

The laws of business success do not vary

This man had to master the laws of business before he could become a success. His text-book of business knowledge was the experience of others and the facts of his own daily experience. He was able to crystallize these experiences into working principles.

The knowledge he finally gained in this way was the same knowledge that has stood behind every big business success. The difference was in the method of learning. Unlike this man, most of us need to have these principles crystallized and set down in writing before we can absorb them.

It is this business knowledge, this crystallized experience of thousands of America's most successful men, that the Alexander Hamilton Institute is giving to more than 50,000 business men today.

Based on the actual experience of thousands of successful business men

The Institute collects, classifies, and transmits to you thru the Modern Business Course and Service the best thought and practice in modern business. It will give you a thoro and sound training in the fundamental principles underlying all departments of business—it will give you a knowledge that could otherwise be obtained *only* by years of bitter experience—if at all.

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A careful reading of this 135-page book, "Forging Ahead in Business," a copy of which we will send you free, will repay you many times over. It will help measure what you know, what you don't know, and what you should know to make success *sure*. Every business man with either a business or a career to guide to bigger, surer success should read this book. Simply fill out and send the coupon below.

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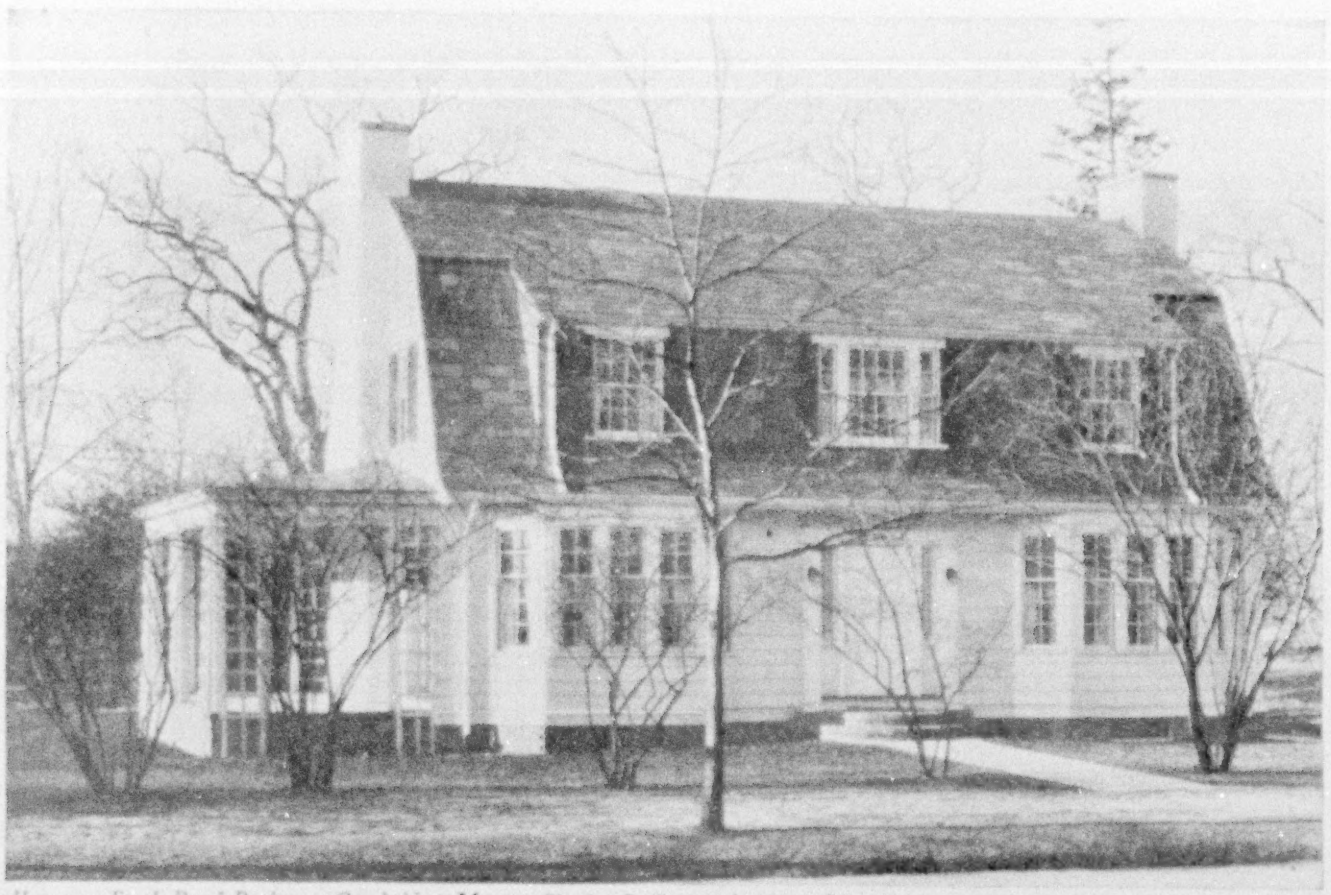

House on Fresh Pond Parkway, Cambridge, Mass. Charles R Greco, Architect, Boston, Mass.

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Address WHITE PINE BUREAU,
1323 MERCHANTS BANK BUILDING, ST. PAUL, MINN.

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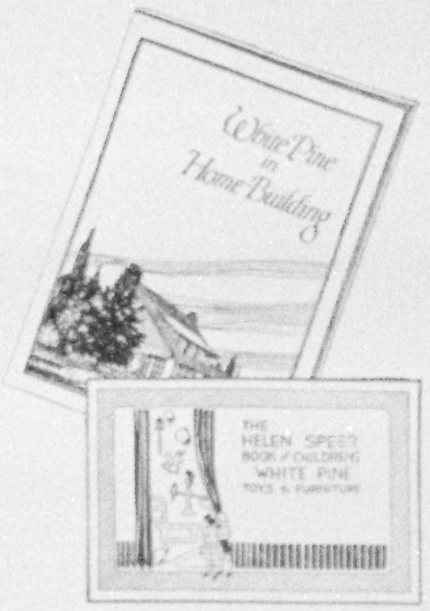

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$1150 F. o. b. Racine
Mitchell Junior—a 40 h. p. Six
120-inch Wheelbase

Mitchell SIXES

$1460 F. o. b. Racine
7-Passenger—48 Horsepower
127-inch Wheelbase

$4,000,000 In Extras

You will find in Mitchells many extras not found in other cars. Hundreds of them which, on this year's output, cost us $4,000,000.

31 unique features—
24 per cent added luxury—
100 per cent over-strength.

These things are paid for by factory savings, due to John W. Bate. He has built and equipped this mammoth plant to build this one type economically—way below what this car would cost elsewhere.

His methods save us the $4,000,000, which pays for these added attractions. Our new body plant this year brings another big saving, which pays for this added luxury—24 per cent.

One result is a complete car—no wanted feature lacking.

Another is such luxury and beauty as you rarely see.

But the greatest result is a lifetime car, due to this double strength. We have doubled our margins of safety.

Over 440 parts are built of toughened steel. All safety parts are vastly oversize. All parts which get a major strain are built of Chrome-Vanadium. Several Bate-built Mitchells have already exceeded 200,000 miles. In two years not a single Bate cantilever spring has broken.

New $1150 Size

There are now two sizes—Mitchell and Mitchell Junior. But the smaller size has 120-inch wheelbase. See which size you like best, which body-style, which price.

Compare these cars with cars which lack these extras. You are bound to choose the Mitchell car, if you do that.

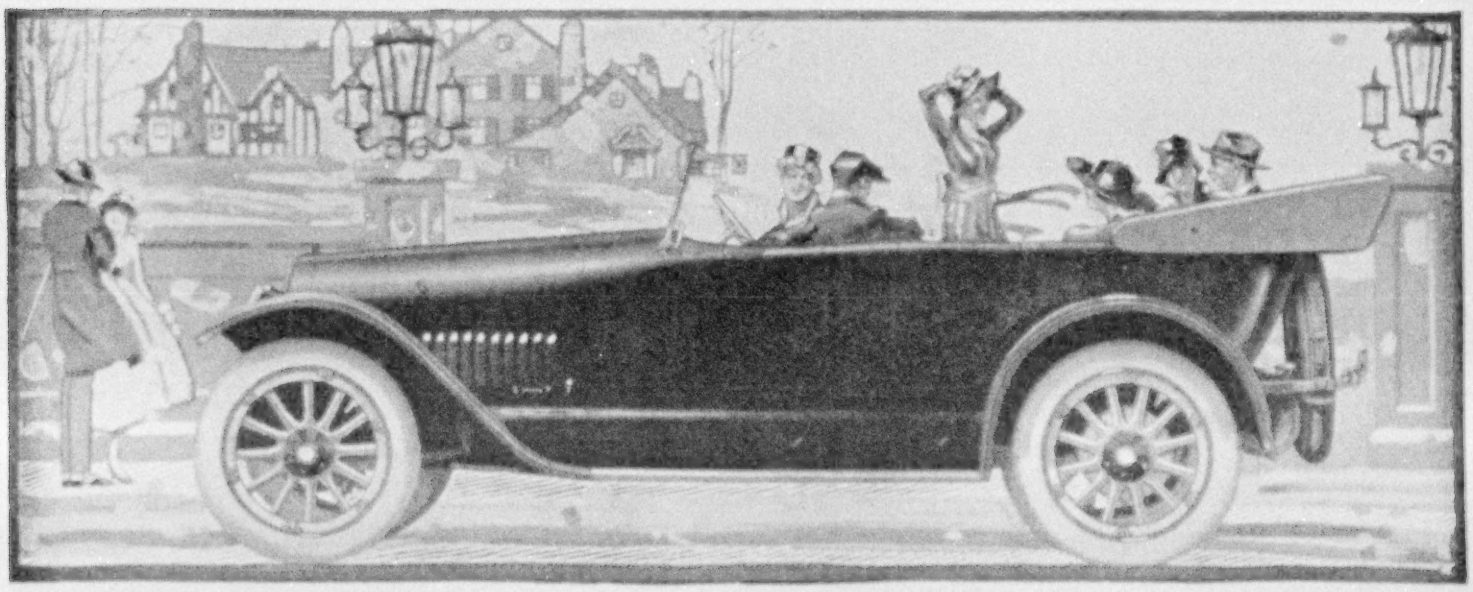
MITCHELL MOTORS COMPANY, Inc.
Racine, Wis., U. S. A.

TWO SIZES

Mitchell—a roomy, 7-passenger Six, with 127-inch wheelbase and a highly-developed 48-horsepower motor.
Price $1460, f. o. b. Racine

Mitchell Junior—a 5-passenger Six on similar lines, with 120-inch wheelbase and a 40-horsepower motor—¼-inch smaller bore.
Price $1150, f. o. b. Racine

Also six styles of enclosed and convertible bodies. Also new Club Roadster.



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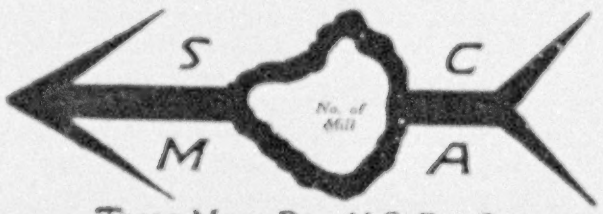
THE SOUTHERN CYPRESS MANUFACTURERS' ASSOCIATION HEREBY INFORMS YOU THAT ALL **CYPRESS** *NOW AND HEREAFTER SHIPPED BY MILLS WHICH ARE MEMBERS OF THE ASSOCIATION WILL BE*

IDENTIFIED BY THIS MARK



TRADE MARK REG. U.S. PAT. OFFICE

This registered trade-mark will be, henceforth,

YOUR INSURANCE POLICY OF QUALITY.

It will appear stamped (mechanically and ineradicably) on one end, or both ends, of EVERY board and timber of

CYPRESS "THE WOOD ETERNAL."

CYPRESS FLOORING, SIDING, MOULDING AND SHINGLES, which come in bundles, will bear the same mark on EVERY BUNDLE.

The legal right to apply this epoch-making symbol of strict RESPONSIBILITY IN LUMBER MAKING AND SELLING is, of course, restricted to those Cypress mills which, by their membership in the Southern Cypress Manufacturers' Association, attest their devotion to its Principles of SERVICE to the CONSUMER and their foresighted appreciation of its open and progressive educational methods.

Only mills cutting "Tide-water" Cypress are eligible for membership. (Cypress which grows too far inland is not equally noted for the "Eternal," or decay-resisting, quality.)

Only mills which subscribe to the Association's standard of scrupulous care in methods of MANUFACTURE, INTEGRITY OF GRADING and ACCURACY OF COUNT can belong to the Association. These responsible "A-1" mills the Association now licenses to

CERTIFY THEIR CYPRESS

by applying the registered trade-mark with their identifying number inserted.

TRADE MARK REG. U.S. PAT. OFFICE

BY THIS MARK YOU KNOW THAT IT'S CYPRESS, "THE WOOD ETERNAL," AND WORTHY OF YOUR FAITH. IT IS WELL TO INSIST ON SEEING THIS TRADE-MARK ON EVERY BOARD OFFERED AS "CYPRESS."

TRADE MARK REG. U.S. PAT. OFFICE

Let our ALL-ROUND HELPS DEPARTMENT help YOU *MORE*. Our entire resources are at your service with Reliable Counsel.

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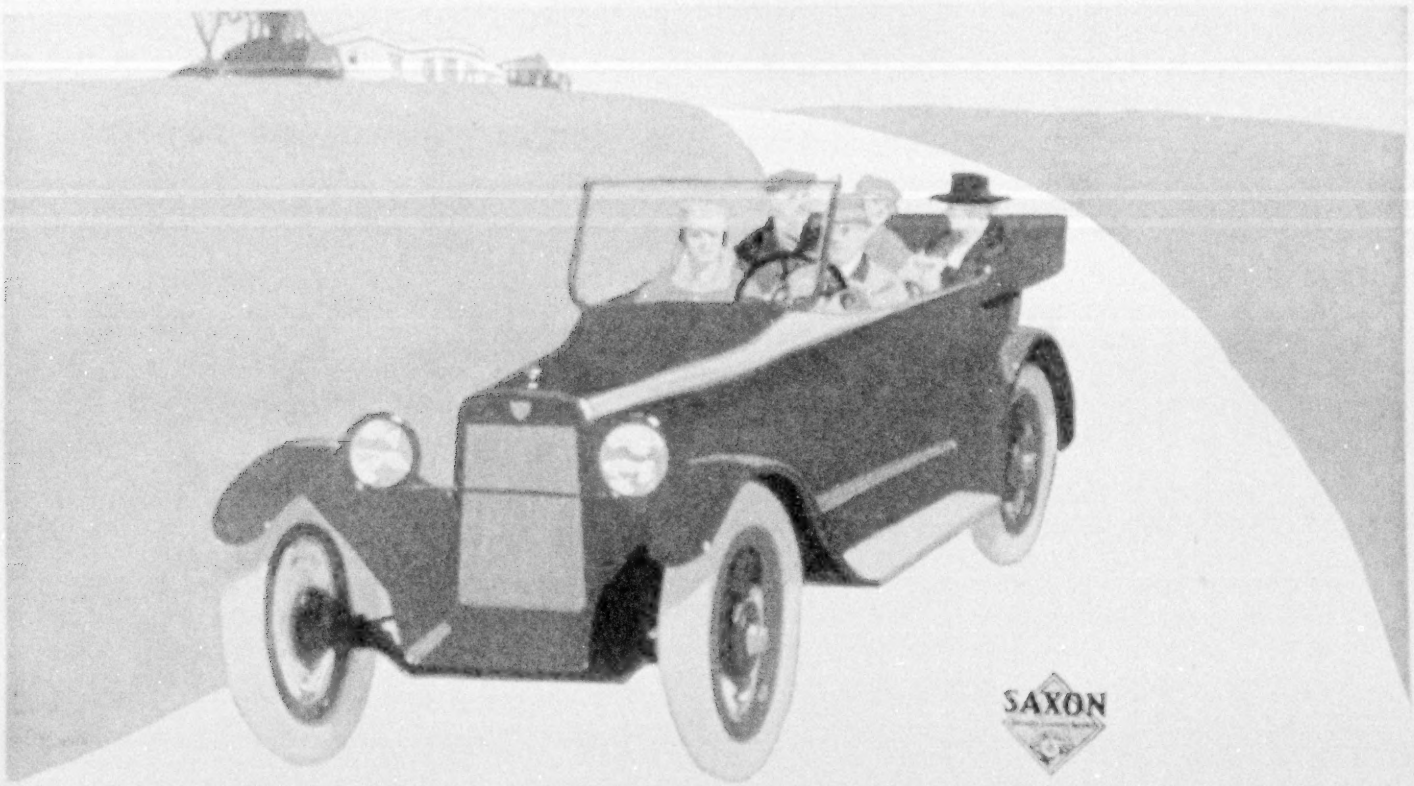
INSIST ON TRADE-MARKED CYPRESS AT YOUR LOCAL LUMBER DEALER'S. IF HE HASN'T IT, *LET US KNOW.*



Consider This Certain and Positive Proof of Saxon "Six" Supremacy

Let us dispense with fine phrases and seek facts.

For facts alone form a stable basis upon which to adjudge motor-car values.

First of all, turn your attention to the Saxon "Six" motor.

Compare it with the car of less than six cylinders that stands highest in your estimation.

Though that "less-than-six" may be developed to the full limit of its possibilities, you still will find lapses between its power impulses.

These lapses, you know, produce the vibration and friction that are the bane of motor life. And they exert considerable injurious effect upon the parts, too.

Gear-shifting becomes more and more frequently a necessity. Acceleration slows up and pulling power lessens.

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On the other hand, the Saxon motor, with its six cylinders, develops a continuous flow of power. Vibration has been reduced to a minimum. Uniform torque, the ambition of all motor designers, is attained.

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At a speed of 20 miles per hour the Saxon "Six" motor developed 98% more impulses per minute than did the "less-than-six."

This 98% greater percentage of impulses is vitally significant.

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THE NATIONAL GEOGRAPHIC MAGAZINE

WHAT GREAT BRITAIN IS DOING

By Sydney Brooks

THERE was a very striking passage in the speech which Mr. Lloyd-George recently delivered at the Guildhall soon after his return from the Allied conference at Rome. "There is one thing," he said, "that struck me and that strikes me more and more each time I attend these conferences and visit the Continent—I mean the increasing extent to which the Allied peoples are looking to Great Britain. They are trusting her rugged strength and great resources more and more. She is to them like a great tower in the deep. She is becoming more and more the hope of the oppressed and the despair of the oppressor, and I feel confident that we shall not fail the people who have put their trust in us."

It would be singularly unbecoming on the part of any British subject to seek to exalt the contribution that his own country is making to the common cause above that of any of the Allies. We can never forget our obligation to Belgium's heroic stand in crucial days, to the impassable wall of steel maintained by unselfish France until we could raise, train, and equip our armies, and to the brave and effective efforts of Russia in the east and united Italy to the south.

If we are now in a position to do rather more than any of them, it is because we have suffered less, because we have been spared the well-nigh mortal blow of an invasion of our territory, and because time has been vouchsafed to us in which to develop and organize our power. But there need be nothing vainglorious—nothing, indeed, but a sober recognition of facts and their responsibilities—in subscribing to Mr. Lloyd-George's estimate of the present situation.

Those who looked at the war with discerning eyes knew from its very beginning that Great Britain was, and could not help being, the linch-pin of the whole alliance. It has taken curiously long for that elementary fact to sink into the general consciousness. America, I should say, is only just beginning to realize it. No doubt it is largely our own fault.

If we had even one-tenth of the German genius for self-advertisement, the world would long ago have understood that without British power the Allies could never have withstood the Prussian onset, and that with British power an Allied victory—complete, smashing, and final—is as certain as the rising of tomorrow's sun.

As it is, Americans in general seem even now to have but an imperfect idea of what Great Britain has accomplished in this war. It is not, in my judgment, that they do not wish to know. It is mainly, I think, that they have been deluded by our old and deceptive trick of taking what we do well for granted and saying nothing about it, while we shriek our blunders from the housetops.

We are by all odds the worst advertisers in the world. We are the most inveterate self-detractors in the world. We

XUM

"GERMANY IS WATCHING": THE GREAT RALLY IN TRAFALGAR SQUARE, LONDON, THE DAY BEFORE THE FIVE-BILLION-DOLLAR WAR LOAN CLOSED, IN FEBRUARY

The number of people present was roughly estimated at from eighty to a hundred thousand. Every inch of space outside the civic inclosure was occupied, including the plinth of the Nelson Column, the backs of the Landseer lions, the fountains, and even a row of posts. Among the speakers was the Premier of New Zealand.

are the most persistent grumblers in the world. Nothing that other people say about Englishmen can ever hope to equal what Englishmen say about themselves.

And, being a strong, rebellious, self-sufficient people, tirelessly given to speaking out, we have naturally found in the dislocations and drama and surprises of the war an endless theme for self-depreciation.

Mr. Dooley once accused us of doing our national housecleaning by sweeping things under the sofa and sprinkling the walls with eau de cologne. There has been none of that in this war. We have published every blunder, we have exposed every shortcoming, we have taken every opportunity of informing our rulers in the plainest possible language just what we thought of them.

THE WAY OF DEMOCRATIC PEOPLES

Compared with the silence of Prussia—a silence never deeper than when concealing some untoward incident, some prodigious miscalculation — our British turmoil has seemed a token of confusion and inefficiency; but in reality it has been just the rough, wholesome, Anglo-American, democratic way of doing things. That is how all self-governing peoples who are used to free speech and who are not used to the discipline of universal military service must inevitably act when caught in a great crisis and obliged to shift the whole basis of public and private life in order to strip themselves for a fight for existence.

The Prussians from the first day of the war have shown themselves consummate masters of the art of magnifying all their successes and minimizing all their failures. Mirabeau more than a hundred years ago declared, and declared truly, that war was the national industry of Prussia. But Prussia since then has supplemented that industry with another—the manufacture of opinion, and not merely German opinion, but foreign opinion. The submissive intelligence of her own people she can, of course, mould as she pleases; but it is astonishing how often she succeeds in imposing upon dispassionate and even hostile onlookers in neutral lands.

At this game of words and appearances and making out a case she leaves every one of the Allies, and indeed all of them combined, very far in the rear.

Take, for instance, the Roumanian campaign of last fall. It was unquestionably a German military success. But it was nothing like the success that headquarters in Berlin tried to make out and that Americans were very largely induced to believe.

All those tales that came clicking over the wireless of the capture of huge stores of grain and oil were fables out of whole cloth. The Allies set fire to the oil wells one by one as the Roumanians retreated and removed or destroyed just as systematically almost the whole supply of foodstuffs.

The present position is that while the great bulk of Roumania has been overrun, from one-half to two-thirds of the Roumanian army is still intact, is being reformed and rearmed for the coming offensive, and that the Germans have to maintain an extra 300 miles of front that would not have been added to their commitments had Roumania remained neutral. From the standpoint of the war as a whole, we have, for the time being, but I agree quite unnecessarily, and as the result of some bad bungling somewhere, lost a pawn, and a pawn that, if employed in another direction, might and should have been extremely useful.

But Prussia has gained nothing except a barren kudos; the Roumanian territories she occupies are a liability and not an asset; to defend them she has to draw upon her swiftly diminishing resources of man-power; a few more such victories and she would be undone. Yet she has undoubtedly managed to fill the unthinking public in more than one neutral land with the idea that her successes in Roumania were in some sort a turning point in the war. I have read I know not how many articles in the American press gravely admonishing us to give up the Balkans as a bad job and withdraw our forces around Saloniki.

EXAGGERATIONS ARE AVOIDED

And in the same way it has been very noticeable how skilfully the Prussians be-

littled and how carefully the British and the French refrained from exaggerating the significance of the great retreat from the Somme.

The moral to be drawn is, I think, this: that you can cut all Prussian boastings and all British lamentations in half, and that when the Prussians are silent it is a sign of failure and when the British are silent it is a proof that all is going well. One could easily multiply instances of this.

Take, for example, our intelligence service. You never hear anything of it. It works as a secret service ought to work—in secret. It enjoys not one-half of the reputation, it attracts not one-tenth of the notoriety, of the German intelligence service. Yet those who are at all behind the scenes know very well that there is precious little hidden from it in any part of the world where it is at work and, least of all, at the front. What our men do not find out about the numbers, distribution, equipment, and morale of the German troops along the Somme may safely be left out of the reckoning.

Similarly, without saying much about it, we quietly at the beginning, or, rather, before the beginning, of the war, rounded up all the Prussian spies in the British Isles, and have so handled matters that none of their successors, to the best of my knowledge and belief, has done us any appreciable harm.

This policy of leaving what we do well to speak for itself has been closely followed in the case of our flying corps and our submarines. We have no aviation heroes. In fact, we rather make a point of having as few heroes of any kind as possible. There are at least a dozen of our flying men whose records in bringing down enemy machines would compare quite favorably with those of the much-trumpeted German champions—Immelmann and Boelcke.

But we never hear of them. Their doings are merged in the general record of our armies at the front, where divisions are very rarely named, regiments and battalions scarcely at all, and individuals practically never. Instead of the flashy prominence of a few men here and there, we are quite content to shelter behind the anonymous but incontestable superiority of our flying corps as a whole—a superiority so great that during the latter months of the battle of the Somme the Germans were virtually fighting blindfold.

PRUSSIAN SUBMARINES INEFFECTIVE

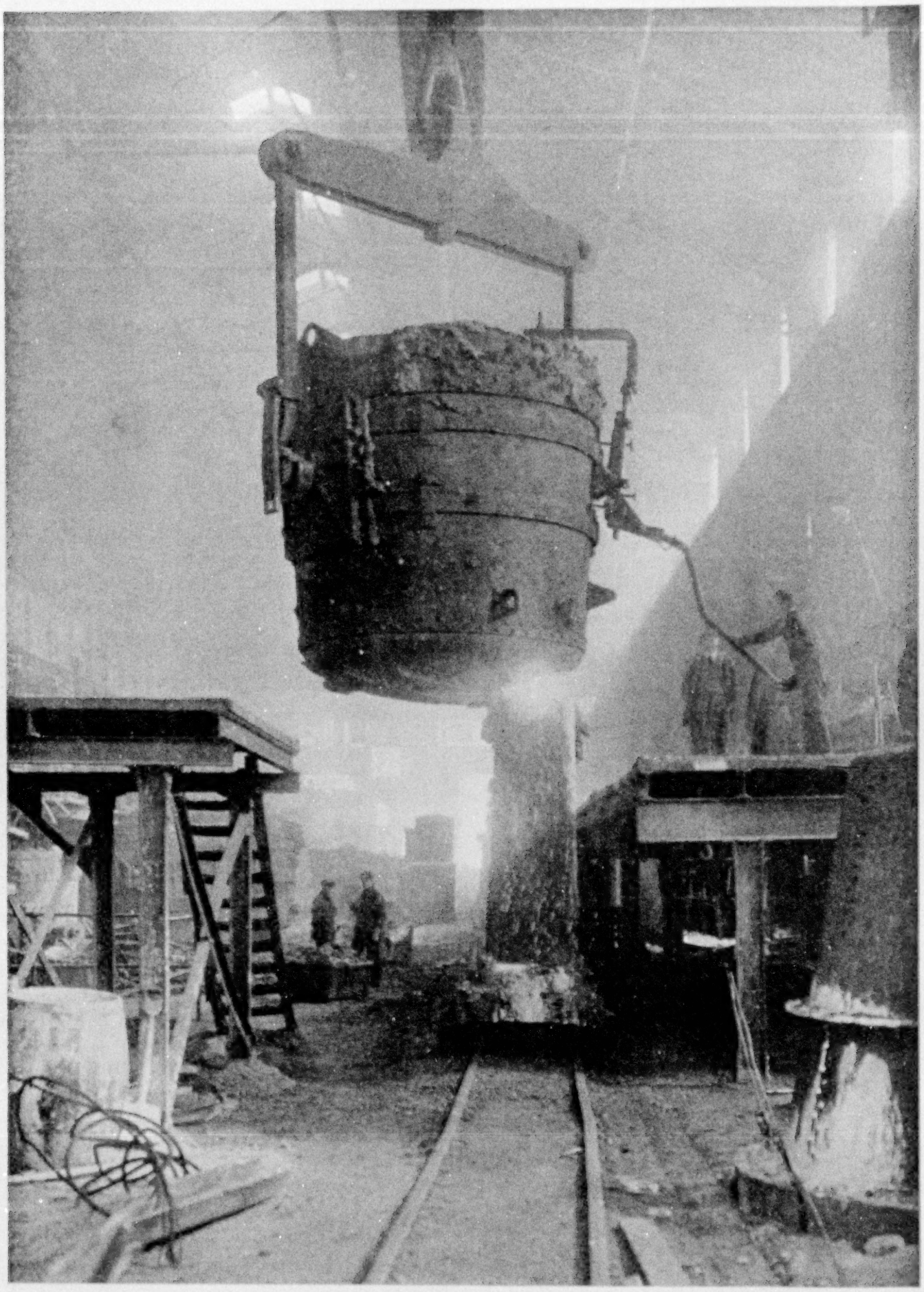
And just as we never advertise the feats of our armies, so we allow the world to think that the Prussians are having it pretty much their own way with their submarines. As a matter of fact, the German submarines have scored very few legitimate successes—by which I mean successes that conform to the usages of civilized warfare. It must be nearly two years since they sank any British men-of-war of any importance.

As pirates preying upon fishing smacks, trawlers, Atlantic liners, and the merchantmen of all nations, they have added a new and infamous chapter to naval history. Otherwise it is, I believe, the opinion of most naval men that in German hands the submarine has proved disappointingly ineffective.

What the British submarines have accomplished in the Dardanelles, in the Sea of Marmora, and in the Baltic has been far more remarkable, though far less known, than the exploits of the German U-boats.

Moreover, it has to be remembered that the Germans have something like a hundred chances to our one; that our fleets are constantly cruising in the North Sea, where the German dreadnoughts and cruisers very rarely venture; and that if our submarines had been offered anything like the opportunities we are ceaselessly dangling before the Germans, and if by now they had not sent several German battleships to the bottom of the sea, the world would have justly said that they had bungled their business.

People, I remember, were thrown into a state of quite unbalanced admiration when the *Deutschland* appeared in American waters. It was spoken of as one of the most remarkable achievements of the war. Few stopped to remember—even indeed if they ever knew—that the war was only a few months old when ten British submarines crossed the Atlantic



CASTING THIRTY TONS OF MOLTEN STEEL IN ONE OF CANADA'S LARGE STEEL PLANTS

"The rally of the Empire to the side of the motherland has, indeed, been one of the most marvelous and one of the most momentous episodes of the war. . . . When the storm gathered, the Dominions said with one voice: 'Whatever happens, we are with you.' When it burst, they said: 'Everything we have is yours.'"

from Halifax to the British Isles—the first submarines in naval history to make the journey under their own power.

We could, of course, if we liked, if we were given to that kind of grand-stand play, arrange for a succession of British submarines to pop up with the most dramatic effect in every single one of the American east coast harbors. But as we prefer the realities of sea-power to its tinsel, the inducement to any such theatricalities is largely lacking.

THE SILENT VOICE

Similarly, while we publish a list of all the vessels sunk by Prussian submarines, we say not a word about the U-boats whose careers are brought to a sudden stop. For myself, I honestly do not know how many of them we have caught, sunk, or destroyed. It may be 180; it may be 200; it may be 220. They come out and they do not return, and there is no one in Germany, and perhaps not half a dozen people in England, who know what becomes of them.

The reasons for our secrecy must be tolerably obvious to any one who thinks the matter over. All that the Germans are able to infer from the failure of any given U-boat to return to port is that somehow or other it has been lost. But how or where they cannot tell.

It may have been through some error of structure or design—a thought to send a chill down the spine of every admiralty official. It may have been through a mistake in navigation. It may have been through one or other of the endless and constantly changing devices that British ingenuity has evolved and brought into play against the new piracy. It may, too, have happened near the German coast or after the U-boat had reached its appointed station. They cannot tell.

They are faced with a blank wall of possibilities that they have no means of verifying. Weeks must often elapse before they can be sure that a submarine which they thought was operating in a certain area had really perished, and that another boat should be dispatched to take its place.

And from another point of view the reasons for reticence are not less urgent. The British admiralty is frequently unable itself to decide from the reports of the naval officers who have come to grips with the submarines whether the enemy vessel was actually destroyed. Some cases are clear; in many there is a margin of doubt; and there can be no question that it is better to say nothing at all than to put forward official claims which cannot be substantiated and which the enemy may be in a position to disprove.

Sometimes, however, the veil of mystery is partially lifted. Sometimes a German U-boat is towed up the Thames, moored to the embankment, and from $75,000 to $100,000 collected for some naval charity by throwing it open to the public. Sometimes if you are dining with a naval officer you will hear wondrous tales of submarines netted, bombed by aëroplanes even when they are well below the surface, hunted and caught by destroyers, induced by one ruse after another to show themselves where they can be got at.

Sometimes, too, in a British port the men of the merchant marine will tell you of Homeric combats that would have warmed the heart of Nelson and Farragut and made Drake and Frobisher gasp and stare.

But these are mere haphazard personal gleanings. No one knows the full extent of the harvest or how it has been gathered in. But we do know enough—or at any rate we think we do—to feel fairly confident that the Germans can attempt nothing and can invent nothing that we cannot find the means of countering; and that confidence has been rather more than justified by all that has happened since February 1.

With the Prussians succeeding in sinking only about one in every hundred ships that enter or leave the British ports; with three-fourths of all our merchantment that are armed successfully resisting destruction; with the speeding up of shipbuilding and the multiplication of means of defense; with both imports and exports not merely not falling off, but steadily and positively increasing—with these as the first fruits of the intensified submarine campaign, we feel that while there may be cause for apprehension, there is little or none for alarm.

Photograph by F. J. Koch

AN OBJECT LESSON IN HIGHLAND KIT PACKING

THE REASONS OF BRITAIN'S POWER

But unquestionably our habit of not talking except when things are going awry has led to some curious misunderstandings and underestimates of the scope and character of the British effort; and I can well imagine that Mr. Lloyd-George's statement, with which I opened this article—his statement about the increasing dependence of all the Allies upon Great Britain and about the main burden of the war falling on our shoulders—must have been received by many Americans with something like incredulity.

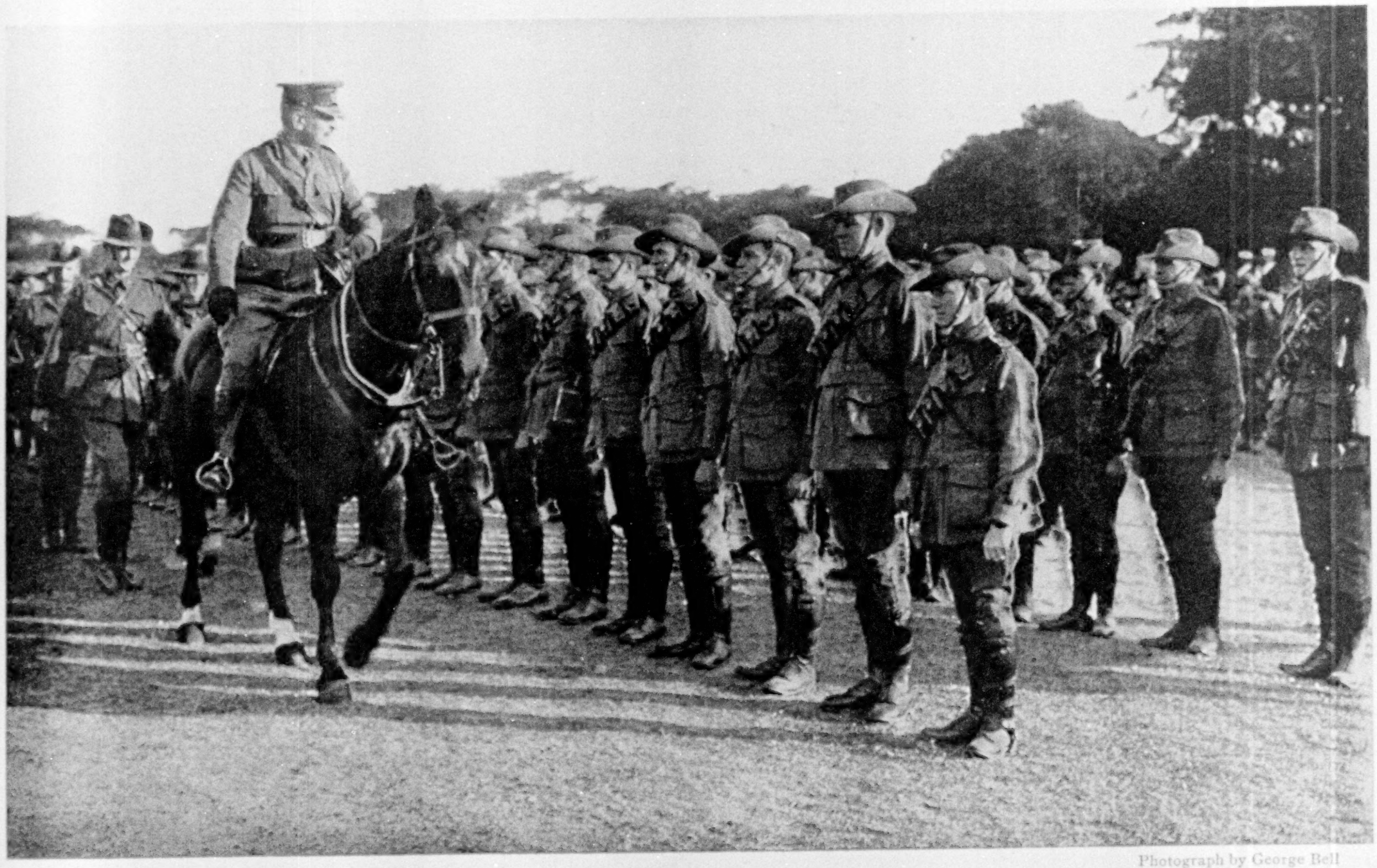
It is worth while, therefore, to examine it more closely and to inquire in some detail what it is that has given Great Britain in this immeasurable cataclysm her extraordinary position as the axle on which all else depends.

It is, first, her naval power; it is, secondly, her wealth; thirdly, it is her industrial resources; fourthly, it is that serene and silent doggedness in the national character which in two and a half years has converted an unarmed, commercial, and rather easy-going nation into a military power of the very first rank, and that animates all the Allies with the knowledge that Great Britain can be relied upon to the uttermost.

THE BRITISH FLEET

I like to think of some future Mahan using the history of this war to point the deadly realities of sea-power. He will need no other example. Everything that naval supremacy means or can ever mean has been taught in the past 32 months in a fashion that he who runs may read.

Suppose Great Britain had remained neutral and the British navy had never moved. What would have happened? The German and Austrian dreadnoughts, with a five-to-one preponderance over the combined dreadnought strength of France and Russia, would have held an easy command over the sea. Germany could then have supplemented her land attack by disembarking troops on both



Photograph by George Bell

A COLONIAL ENGINEER CORPS IN THE MAKING: INSPECTING ENGINEER TROOPS UNDER TRAINING FOR SERVICE "SOMEWHERE IN FRANCE"

the Russian and the French coasts in the rear of the Russian and French armies; she would have shut off all the French oversea trade; she would have captured or destroyed or driven into port practically the whole of the French and Russian merchant marine; France would have been blockaded; with her chief industrial provinces in German occupation, she would have been prevented from importing any food, any raw material, any munitions; while Germany would have been free to draw on the resources of the entire world. In less than six months, for all her magnificent valor, France could not but have succumbed.

That was the Prussian calculation and it was a perfectly sound one; but it fell like a house of cards when Great Britain intervened. Instead of securing at once the command of the sea, Germany lost it at once. Everything that she had hoped to inflict upon France and Russia by maritime supremacy was in fact inflicted upon herself. What has made it possible for us to land some 2,000,000 men on the Continent of Europe, equipped with every single item in the infinitely varied paraphernalia of modern war?

AN UBIQUITOUS AND UNSHAKABLE POWER

How have we been able to conduct simultaneous campaigns in Egypt, East Africa, the Cameroons, Southwest Africa, the Balkans, and the Pacific? There are Russian troops fighting at this moment in France and round Saloniki. How did they get there?

From all the ends of the earth British subjects in hundreds upon hundreds of thousands have flocked to the central battlefield. What agency convoyed them? What power protected them?

The United States has built up with the Allies a trade that throws all previous American experience of foreign commerce into the shade. But how many Americans, I wonder, stop to ask themselves how it is that this vast volume of merchandise has crossed the Atlantic in the midst of the greatest war in all history almost as swiftly and securely as in the days of profoundest peace?

One by one Germany's colonies have been torn from her grasp—those oversea possessions the children of so many hopes, the scenes of such unremitting labor, the nursing plots of such vast ambitions; and not a single blow has been struck in defense of them by the fatherland itself. One and all have had to rely on their own isolated and local efforts.

They have looked in vain to Germany. Germany—paralyzed by what power? held down in helplessness by what mysterious spell?—has impotently watched her beginnings of a world-wide empire shattered beneath her eyes.

How is it, again, that the Belgian army has been rearmed, reconstituted, and reequipped? How is it that the Serbian forces have similarly been rescued and remade? How is it that Russia has been remunitioned, that Italy has been enabled to overcome her natural deficiencies, that France, in spite of the loss of some of her most highly industrialized districts, is still, for purposes both of war and of commerce, a great manufacturing nation, and that all the Allies can import freely what they need from the neutral world?

To what ubiquitous and unshakable power, stretching from Iceland to the Equator and back again, guarding all oceans, girdling the whole world, are these miracles due? They are due to just one thing—the British navy. Because of the British navy, Germany is a beleagured garrison, her strength steadily, ceaselessly sapping away; her people languishing physically under the stress of the blockade, and financially and economically under the total loss of her foreign trade.

IT SUPPORTS THE EDIFICE

Defeat the British navy and the war is over in six weeks. There lies Germany's nearest road, not only to peace, but to full and final victory. Take away from the Grand Alliance the support of the British navy and the whole structure collapses into nothingness.

Some Americans may have wondered why Prussia last fall should have begun to squeal for peace and why, on failing to get it, she should have renewed, even in face of the almost certain prospect of uniting nearly the whole neutral world against her, her campaign of murder on the high seas.

XUM

THE IRON HEEL THAT CRUSHES BELGIUM

This great river, the Meuse, rises in France and flows across Belgium, through the Netherlands, and joins the left branch of the Rhine near Gorkum, to empty into the North Sea at the Hook of Holland. On its banks in France are the cities of Verdun, Sedan, Mezieres, and Givet. In Belgium it rolls past Dinant, Namur, Huy, and Liége, while in Holland the cities of Maestricht, Roermond, and Venlo depend upon it to furnish them a route to the sea.

But the answer is very simple. It is because the British navy is preying upon her vitals; because the pressure of our naval thumb upon her windpipe is never relaxed for one moment; because all triumphs on land are illusory and untenable, with privation and discontent mounting up at home; because by commanding the seas we hold the master key to all economic vitality and to all strategic mobility.

Germany has really had no option but to use her submarines for all they are worth. Her one chance of staving off defeat is to raise the British blockade, to break British sea-power, to starve Britain into surrender. It is a ten or a twenty to one chance against success. But what does that matter when it is her only chance?

She sees and sees correctly that our control of the oceans is not a mere adjunct to the strength of the Alliance. It is its basis. It supports the whole edifice. Without it all that the Allies have built up would crumble to pieces. With it they can erect, as on a rock, the instruments of certain victory.

But sea-power is not the only, though it is by far the greatest, of the contributions that make Great Britain the mainstay of the Alliance. We are its bankers, as well as its guardians on the sea. By now we must have advanced to our Allies not less than $4,000,000,000. Virtually we have taken on our shoulders the responsibility for the credit of the Alliance abroad.

BRITAIN'S WAR FINANCES

And at the same time that we are rendering this service we are spending more in a month than the United States Government, not by any means the most economical in the world, has been compelled to spend in the whole of the last year; our weekly outlay averages some $200,000,000; we have raised on credit over $25,000,000,000, or about five times the generally accepted estimate of the cost of the entire Civil War; our yearly revenue, about four-fifths of which is raised by direct taxation—there are many men in Great Britain at this moment who are paying out to the State more than half their income—amounts to some $2,500,000,000.

And as for the unstinted outpouring of private generosity, let this one fact suffice: that a single London newspaper, acting on behalf of a single fund, has raised nearly as much money as all the American people, the whole hundred millions of them—and they most certainly have not been behindhand in their generosity—have given to all the war charities combined. I should judge that by now the British people must have subscribed for their own sufferers by the war and for their Allies at least $500,000,000.

But besides placing our purse and our fleets at the service of the Alliance we are also its main arsenal and workshop. To Great Britain all who are fighting with her turn as to an inexhaustible treasure-house and rarely turn in vain. Is it ships, or provisions, or clothing, or raw material, or coal, or guns, or shells, or any other item in the endless catalogue of war? At once and unhesitatingly, for whatever they may happen to need, the Allies with one accord come to us; and it is our proud privilege to satisfy, as far as we can, every one of their demands.

A NATION REWROUGHT INDUSTRIALLY

I am not sure that in this country there is much more than a very hazy conception of the industrial revolution that has been wrought by the war in Great Britain. It is not merely that we have scrapped old machinery with a more than American ruthlessness. It is not merely that some of the best and most scientific brains in the Kingdom are now giving their attention, and with astounding results, to the problems of manufacture, or that capital and labor were never working more harmoniously together, or that trade-union practices which interfered with the maximum production have been done away with.

It is not merely that over 4,500 firms, not one of which before the war even dreamed of making munitions, are now engaged on nothing else, or that we have erected over 100 colossal government factories for turning out shells, guns, powder, and the implements of trench war-

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A POPULAR DEMONSTRATION BY THE NELSON COLUMN IN TRAFALGAR SQUARE, LONDON, ON NELSON DAY

fare; or that we have trained and organized and are now employing on war work some 3,500,000 people; or that we have discovered and utilized the immense, the hitherto unused, industrial capacities of women.

It is not merely that the government is branching out in a hundred helpful directions and backing up our merchants and manufacturers with all the resources at its command. It is not merely that our biggest firms are everywhere getting together and organizing the trades to which they belong as they have never been organized before.

Nor is it merely that questions of industrial welfare and efficiency and the whole economy of production are being studied with incomparable zeal, and that nothing since the introduction of the steam-engine has so renovated, sent such a stir through all branches of British industry, as this war.

These are not the things that matter. What matters is that Britain is working; has taken off her coat; has ceased to be a land of leisure, and has become a land of infinite labor. And to what effect she is working may be judged by the fact that in spite of the vast exodus from industry to the army and navy, and in spite of the concentration of the main labor force upon munitions, her exports of ordinary commercial commodities reached last year a value only once exceeded in the most prosperous times of peace.

A MIRACLE OF ACHIEVEMENT

Talk of German efficiency and German organization! I know of nothing in Germany's conduct of the war that for sheer genius and flexibility surpasses the industrial transformation that the past thirty months have produced in Great Britain.

How we have worked up our output of high explosive shells to a point where it leaves the German factories far behind—and less than two years ago Germany was turning out a hundred times as many of these shells as we were; how we

have grappled with and solved pretty nearly every one of the technical problems that the war has sprung upon us, and how in doing so we have had to turn all our industrial arrangements upside down and to create what is nothing less than a new industrial order—all this it would need a volume, and a very fascinating one, to describe.

We were set what seemed a hopelessly impossible task and we have accomplished it; and our present independence of America in the supply of munitions and the fighting throughout the latter half of 1916 on the Somme front are more eloquent than any statistics could be of the magnitude of our effort.

But I should just like to say a word or two as to the services that in this way we have been able to render the Allies. I suppose that we must have placed at their disposal not less than 500 British ships. There are special factories in Great Britain solely devoted to meeting the armament needs of Russia, of France, and of Belgium. Shells, field howitzers, heavy guns, grenades, machine-guns, and small arms leave British ports in immense quantities day after day for the use of our Allies.

THESE WONDERFUL FEATS MADE POSSIBLE BY WOMEN

One-third of our total production of shell steel goes to France. That fact alone, to those who understand the character of this war, is an epitome of Great Britain's industrial contributions to the common cause. Three-fourths of the steel-producing districts of France are occupied by the enemy, and our ally absolutely depends on us and on our command of the sea to procure the essential basis of all modern warfare.

It is the same with other metals—with copper, for instance, antimony, lead, tin, spelter, tungsten, mercury, high-speed steel, and other less vital substances. All these we are manufacturing in Great Britain or in other parts of the Empire, or purchasing in neutral lands and delivering to our Allies, under the protection of the British navy, to the value of over $30,000,000 a month.

Millions of tons of coal and coke reach them from our shores every week; one-fifth of our total production of machine tools is set aside for them, and huge cargoes of explosives and machinery are daily dispatched to their address.

It was with the products of British workshops, rushed to the Mediterranean in British ships and guarded by the British navy, that the Italians were able to push back the Austrian offensive of last May; and the shells and guns which we had manufactured for and transported to Russia were the real starting point of Brusiloff's triumphant sweep through Galicia.

The immensity of productive effort required to meet these demands could never have been sustained had it not been for the women. They have entered pretty nearly every trade and occupation, however arduous and dangerous, in the intensity of their desire to "do their bit," and it is one of the compensations of the war that it should have revealed to us the full splendor of British womanhood.

Nor could we have borne our unique burden without organizing powers of the highest efficiency. There is a legend abroad, which we are much too busy and also much too lazy to refute, that Great Britain in this war is following her normal habit of "muddling through." As a matter of fact, she owes her present predominance precisely to the efficiency which the struggle has surprised out of her.

PROPHETIC MEASURES

In almost all the big commercial and administrative undertakings that are inseparable from war, and without which victory cannot be achieved, the British Government has come off with flying colors. Its statesmanship, for instance, in the early days of the war saved the fabric of international credit from what might have been irreparable ruin.

The measures by which it assumed control of the railways and has since directed them were so well thought out that scarcely a life, or an hour of time, or a ton of stores or equipment has been lost in the whole tremendous business of transporting and supplying our armies overseas.

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A SAMPLE OF CANADA'S CONTRIBUTION TO THE BRITISH FORCES

One might recall, again, how its scheme for insuring cargoes and hulls gave instant confidence to the shipping world and went far toward maintaining that regularity of our food supplies which so far has been one of the wonders of the war.

One might recall, too, how it bought up some $90,000,000 worth of sugar and succeeded for a long while in keeping that essential commodity cheaper in England, which has to import it, than in Germany, which produces it.

Similarly, it got a not less effective control of the refrigerated meat trade; it made enormous purchases of wheat and oats without any one, even in the Chicago pit, suspecting that the British Government was the buyer; it bought up the whole of the Norwegian fish supply; it has regulated the price of coal; it has overridden not less successfully the ordinary laws of supply and demand in the case of wool, flax, and jute, to the immense benefit of the State, of the textile trades, and of our Allies.

It is now, under Mr. Lloyd-George's leadership, branching out into a far more minute scheme for controlling the production and distribution of the food of the entire country. It is taking over the shipping trade, the mining industry, and most of the liquor trade.

It is feeling its way toward a system of compulsory civil service as a complement to compulsory military service, so that every man not wanted in the army—and every woman, too—may be set to work where his or her labor can be most useful to the State.

There is not the smallest doubt that it will prove as efficient in these as it has in all its other business enterprises—as it proved, for instance, in devising and in inducing Holland, Norway, and Denmark to accept its plan for rationing those countries more or less in accordance with their ante-bellum needs; and as it also proved in the very complicated arrangements that have to be made with the cotton, metal, and textile trades in the United States.

Even our press censorship, for all its stupidities in the opening months of the

war, has triumphantly fulfilled its main purpose, that of preventing the publication of any news which might be of use to the enemy; and if Americans will quietly sit down and imagine the entire American press muzzled into a similar innocuousness they will begin to appreciate at least one of the many hundred problems that the British Government has had to solve. The censorship of the mails is another masterpiece of organization.

Certainly the civilian, English or American, who visits the British front these days and who realizes that every man and every ounce of stores and every pound of equipment, and, indeed, the whole army and all it eats and wears and uses, and the weapons wherewith it fights, have been brought there after two railway journeys and one sea journey, involving at least four and possibly six changes and transshipments, becomes just a little tired when he hears the British accused of inefficiency. And the longer he explores the bases and takes in the perfection of all the arrangements for feeding, supplying, and nursing these tremendous hosts and for making good the casualties to material, the more he perceives that Great Britain is winning this war by the rapidity and completeness with which she has thrown overboard all the slouchy standards of peace.

"EVERYTHING WE HAVE IS YOURS"

And when I say Great Britain I mean, of course, not the men and women of the United Kingdom only, but all British subjects everywhere. The rally of the Empire to the side of the motherland has, indeed, been one of the most marvelous and one of the most momentous episodes of the war.

Wherever the British flag waves, in places the ordinary Englishman has barely heard of, among peoples of whom he knows next to nothing there is today, as there has been since the war began, but one impulse and one resolve. From the 450,000,000 British subjects, infinitely varied in speech and creed and color, in habits and geographical distribution, in economic circumstances and pursuits, there breathes the single intense determination to persist in this struggle till victory has crowned our united arms.

The world has never seen anything like it. The Crusades bore but the faintest resemblance to this spontaneous rising of the free communities, scattered over the seven seas, on behalf of a cause that passionately appeals to their sense of right. The poet's prayer has been answered. "In the day of Armageddon, at the last great fight of all," it has been proved that "our house stands together and the pillars do not fall." The Prussians always knew that at the touch of war the British Empire would rise. They were quite right. It has risen. But not precisely in the way they expected.

When the storm gathered, the Dominions said with one voice: "Whatever happens, we are with you." When it burst, they said: "Everything we have is yours."

Canada proposed sending an expeditionary force two days before war was declared. Australia put the Australian navy and 20,000 men at the complete disposal of the home government. New Zealand, five days before the war broke out, declared her intention to send her utmost quota of help in support of the Empire. South Africa at once assumed, and very brilliantly carried out, full responsibility for her own defense. Newfoundland engaged on the spot to meet all the local expenses of raising 1,000 men for the naval reserve.

MARVELOUS GIFTS FROM INDIA

As for India, a veritable tidal wave of loyalty and sacrifice swept from the Himalayas to Cape Comorin. The rulers of the native States, nearly 700 in all, offered the King-Emperor their personal services and their local resources. There are 27 States in India that maintain Imperial service troops. One and all of these corps were literally flung at the head of the Viceroy.

Money, jewelry, horses and camels and men poured in upon the government. The Dalai Lama of Tibet offered 1,000 troops. The chiefs of the frontier tribes pressed their services. Sir Pertab Singh, though in his seventieth year, would take no denial, and his spirit was the spirit of all the diverse millions in the dependency.

A vast competition ensued to see which State, which prince, could do most for the Empire. Faction ceased; grievances were put on one side; discontent was smothered. When the news came that the King-Emperor would use the valor of his Indian subjects, the whole peninsula rang with joy.

All this in the first month of the war. Soon the stream became a mighty torrent fed from every corner of the Empire. All the fruits of the earth, all the products of the factory, all the resources of public treasures and private purses, all the accessories of war that individual generosity could furnish, were lavished without stint upon the government in London.

Time and again the Colonial office had to refuse gifts that it felt would be putting too great a strain on the donors. From the seamstresses and market-women of the Bahamas, with their offerings of two or three shillings, to the Nizam of Hyderabad, with his initial gift of $2,000,000; from East African chiefs, with their contributions of bullocks and goats, to the millions forwarded in money and goods from the self-governing dominions—one common passion to give and spend swept through the Empire.

If it had been confined to men and women of British blood and origin, it would still have been wonderful enough; but what gave and gives it—for the tide still runs flood high—its preëminent significance is that the native rulers and peoples have been everywhere foremost in words and deeds. They hastened as one man to show their gratitude for what British justice and British government had done for them; and the more they knew of Prussian rule the more quickly they hastened.

Not in a thousand years could the Hohenzollerns earn such touching and unforced tributes of loyalty and affection as Sir Hugh Clifford on the Gold Coast and Sir Frederic D. Lugard in Nigeria—to mention but two instances—have been privileged to receive.

And what have the men of the dominions and of India achieved in the war? They have seized the German possessions in the Pacific; they have conquered Togoland and German Southwest Africa and the Cameroons; they hold virtually the whole of German East Africa in their grip; they made an end of the *Emden;* in Flanders and the Dardanelles, at the head of the Persian Gulf, in Egypt, in Arabia, and along the course of the Tigris and Euphrates, Indians and New Zealanders, Australians and Canadians, have shed their bravest blood.

Before the war is ended the Empire overseas will have thrown into the struggle well over 1,000,000 men, unsurpassed the world over in physique, intelligence, and the qualities of daring initiative.

It is a superb record. No Britisher can even think of it without a feeling of awe mingling with his pride. Far beyond any material strengthening, it has brought to the motherland the inspiration of the real sense of oneness that underlies all the peoples of the Empire.

This war will change many things; on the structure and machinery of the British Empire its mark will be indelible. No one after the experience of the first two and a half years can think it possible to maintain much longer the arrangement by which policies that affect the governments and peoples of the entire Empire and involve them in unlooked-for perils, sacrifices, and responsibilities are decided in London by the leaders of a single British political party, without any consultation whatever with the statesmen of the dominions. That is an anomaly which will have to go. But to uproot it means not merely to alter, but to revolutionize, the constitution of the British Empire.

AS IF AMERICA SHOULD RAISE 11,500,000 TROOPS

Meanwhile to make the rounds of any of the British fronts at any of the theaters of war is to view a microcosm of the Empire. It is, indeed, the climax to all our other services and achievements that we should have turned ourselves into a military power of the first order. People talk of Great Britain being slow to wake up to the realities of the war. So we were in some ways. But 2,000,000 men enlisted in the first year of the war, which seems to show a certain consciousness that at any rate something unusual

was going on. And before conscription came into force in May of last year—that is, before the war was two years old—5,000,000 men, or more than 11 per cent of the total population of the British Isles, had volunteered.

If Americans will imagine themselves raising a volunteer army of 11,500,000 men—which is what they would have to do to parallel the British achievement—they will get some idea of the magnitude of what has been accomplished. Altogether it seems probable that at least 6,500,000, and possibly 7,000,000, men of the United Kingdom will have served with the colors before the war is over.

Our old army that formed the expeditionary force to France; that covered itself with credit during the retreat from Mons; that helped to save the French forces from being outflanked, and that barred the way to Calais against a German army that outnumbered it by more than four to one, was, I suppose, one of the most wonderful military instruments that has ever been fashioned.

A DEMOCRATIC ARMY

But it was a profession, a caste, apart. The new armies, however, are not a caste; they are the nation itself. They are drawn from every class and trade and profession in the Kingdom, and they proved conclusively on the Somme that they could beat the Germans at their own game.

They gave the German army such a mauling as seldom any army has ever received since warfare first began. The battle of the Somme was not only by far the biggest battle of the war; in duration, in the numbers engaged, and in the intensity of the artillery fire it was the biggest battle the world has yet seen. Some 750,000 of the enemy were put out of action before it ended. Our troops captured position after position, each one stronger than any the Germans have taken since the beginning of the war.

They made "the blood bath of the Somme" a name of terror throughout the fatherland, charged with horror no less deep than that of Verdun. They compelled the greatest retreat that it has so far fallen upon the German troops to execute. They pounded the heart out of them, and they have followed the enemy to his new lines with a definite conviction that they have at last the upper hand.

But our men who are thus helping to wear down the most formidable foe that has ever assaulted the freedom of Europe, who have captured Bagdad, and are contributing to end Turkish rule in Asia Minor; who have mopped up the German colonies, while preserving intact the integrity of all British possessions, and who are holding up their end in the difficult warfare of the Balkans—these men are something more than the backbone of Britain during the struggle. They will be its backbone also in the hardly less anxious years of peace. They will be the pivot of the new England that is being forged in the furnace of the war.

LESSONS OF THE WAR

And that new England is a very different country from the old one. A political democracy we have long been. A social democracy before the war we were not. But we are now. Some six or seven million men, as I have said, have mingled with one another; have learned to understand and sympathize with one another in the new armies; have been trained into an equal brotherhood in the severest school of courage, efficiency, and discipline; have had most of the nonsense of social distinctions knocked out of them.

Gone is the vicious consideration that wealth has always claimed and received in the plump security of the British Isles. Duke's son and cook's son are fighting shoulder to shoulder; great ladies do the waiting in the soldiers' refreshment buffets; work like sewing maids in the Red Cross arsenals; like factory hands in the munition works; a shop walker and a grocer's assistant wear the Victoria Cross—the new patent of nobility; for the convalescent wounded there is a boundless outpouring of hospitality and affection, free from the remotest tinge of condescension; the impulse to succor, to link hands, to know and understand one another, is universal.

We have learned from this war, and perhaps nothing else could have taught us, the nobility of sacrifice and of work.

XUM

We have learned the full meaning of citizenship. We are going through an ordeal that has called into play every faculty we possess, and that will leave us facing life sanely, distinguishing very sharply between its realities and its solemn plausibilities and a hundred times more efficient than we were for meeting all its emergencies.

You must not think of England as depressed. She is facing her task, she is bearing her titanic load, with a tenacity that is wonderfully serene. She is serene not only because she is confident of her power, but because she knows she is fighting for the noblest causes that ever summoned a nation to arms, and because she knows, with an equally passionate certainty of conviction, that honor and duty left her no alternative.

A NATION IN TRANSITION

Although nowadays in England there is little social life—people have no time in which to see anybody—and little travel, and practically no sport, and few opportunities and less inclination for amusement, and although we have to get along as best we can without servants, or with very few of them, without letters—everybody is too busy to write except to the men at the front—without motoring, without lights in the towns after dark, and without Paris fashions and dinner parties and balls, and although every morning there stares us in the face the ghastly list of the fallen and the wounded, still we are buoyed up by the knowledge that the cause, the great cause, is worth all sacrifices and all privations.

That is why we have gladly surrendered our most cherished liberties, turned our parliamentary system inside out, and submitted to a multitude of restrictions and inconveniences any one of which in the little days of peace would have started a rebellion.

Great Britain, that seemed so fixed, is now in transition; the foundations of its whole scheme of life are shifting, even if they are not breaking; habits and prejudices and old instinctive attitudes of mind are in process of dissolution; economic conditions that one thought were rooted in the deeps are made plastic and adjustable; and from this welter of renewal there is springing up an England strengthened by enormous sacrifices for great ideals, ennobled by poverty, disciplined without losing her characteristic flexibility and self-reliance, knowing more than a little of the true faith of social equality, and proud to have played once more, and not without honor, her historic rôle as the defender of the liberties of Europe.

RUSSIA'S DEMOCRATS

By Montgomery Schuyler

THERE is nothing new under the sun. Recent events in Russia have not introduced an entirely new system of government into that great empire, but the revolution of the past few weeks, as we hastily but inaccurately call it, is in truth a reversal to an earlier form of democratic government in which the Russian people centuries ago had made great progress and in which they stood in the forefront of the European nations.

The leaders of thought in Russia today have not evolved a novelty, nor are they experimenting with a novelty; they have simply brought back to life the centuries old popular saying of the people in Russia: "If the prince is bad, into the mud with him."

We must admit, of course, that it has not been exactly the custom in the past few hundred years to act upon this saying in the case of rulers who had made themselves disliked by their subjects, but the underlying spirit was always there, waiting with infinite Russian patience for the men and the hour.

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THE MONUMENT OF FAME: PETROGRAD

In the square to the east of the Trinity Cathedral towers this cast-iron shaft surmounted by a bronze figure of Victory. The monument was erected in 1886 to commemorate the events of the Russo-Turkish War of 1877-1878. Five rows of captured Turkish cannon form the flutes of the Corinthian column and ten captured guns decorate the base. The adjacent cathedral occupies the site of the wooden chapel in which tradition says Peter the Great was married on a November night in 1707 to Catherine, the future empress.

Photograph from Boston Photo News Company

RUSSIAN CAVALRY ADVANCING AGAIN INTO AUSTRIAN TERRITORY

With the inability of the commissariat department of the Russian War Office to cope with the problems of provisioning troops in the early days of the European struggle, committees appointed by the *zemstvos* (local elective assemblies) began to provide for the comfort of the men during the mobilization period. Gradually but steadily these committees, which at first performed services similar to those rendered by the Red Cross and similar organizations in this country, took over every function of the quartermaster's department of the army and navy. This invaluable work, quietly and inconspicuously performed by the *zemstvos*, long the most liberal influences at work in Russia, has been more effective than any other one factor in causing the peasants to view the new government with favor.

The whole social fabric of the early Slav was of a communal kind, but of a communism very different from that which afterward grew up embracing common property. Collectively the Slavs tilled the soil and carried on other occupations and collectively they lived in large timber houses.

It was an excellent system for the development of certain features of self-government; but in the troublous times in which it started, it was not sufficient to give any one collection of people a preponderance over other groups, and it was not suited to any great advance in civilization.

In time it was realized that some stronger and more centralized form of control was needed for the protection of the Slavs from their more warlike neighbors, the Asiatic tribes, by whom they were surrounded.

They took, then, voluntarily one of the most remarkable steps recorded by history, or at least vouched for by legend: they themselves called in to govern them two Scandinavian princes and a princess—Rurik, Igor, and Olga—and said to them, according to the story: "Our country is wide and fertile, but there is no order. Come and govern us."

Eventually these princes and their followers became the new aristocracy of the time, very much as happened in England with the Normans, who were, if we believe tradition, the same race of people.

The union of the two elements gave the people what they lacked and formed the beginnings of the Russian Empire of today, with their mixture of democratic ideas with perfunctory obedience to established rulers.

In the early days princes could not exact obedience against the wish of the people. Unpopular rulers were dismissed with scant ceremony in medieval Russia and, especially in the palmy days of Novgorod "the Great," there was a real self-governing republic in the heart of Russia.

THE TATAR CURSE

In spite of the new blood thus acquired and the traditions of democracy which were rapidly and widely developing from these factors, the geography of the country once more showed its power in influencing history. The Russian communities were spreading and scattering all over the plain, and while they were laying the foundations for future greatness of empire there was not sufficient cohesion among them to develop the broad unity of purpose which was to be found so necessary if these little States were to resist invasion.

For along with the growth of the principalities came the great vital fact which stands out and dominates everything else in the history of medieval Russia, namely, the later Tatar invasions and the gradual subjugation by them of the Russian princes. In another country the inhabitants could have retreated to mountain and desert regions and held off the newcomers for centuries.

But the peaceful and peace-loving Russians were in no condition to resist these formidable barbarians, who, under the celebrated Genghiz Khan and other leaders, rapidly overran Russia and in a comparatively short space of time had brought the whole country under their rule. The very nature of the loose and highly localized government of the princes was their undoing and they suffered by it for centuries, and in fact until they took a leaf from the conquerors' book and themselves built up the central power they needed.

We must therefore, I think, regard the Mongol invasions as the underlying cause of the development of the autocratic principle in Russia. They built up a superstructure of Oriental despotism and autocracy, which, in one form or another, has lasted in Russia until the present time.

Even in far-away times the Russian peasant was impatient of too much control over his personal liberty and his property, and when he was not strong enough to resist or powerful enough to drive out the offending prince he did the next best thing—disappeared himself, with all his belongings, and founded a new settlement elsewhere. This fact must be kept constantly in mind in any study of the reasons why the Tatars obtained and kept for so long such a hold upon the Russian principalities; the people and their rulers were not united by bonds

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A PRELATE OF THE GREEK CHURCH BLESSING AN AUTOMOBILE AMBULANCE, THE GIFT OF RUSSIANS IN PARIS. THE CEREMONY TOOK PLACE IN THE PRESENCE OF THE RUSSIAN AMBASSADOR TO FRANCE

XUM

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PRIESTS OF THE GREEK CHURCH BESTOWING BLESSINGS ON RUSSIAN SOLDIERS AS AWARDS FOR VALOR

An interesting ceremony behind the Russian lines is this personal blessing bestowed by their priest on Russian soldiers who have distinguished themselves on the battlefield. The Russian soldier is devoted to his church, and the personal blessing by the priest is more valuable to him than any military decoration, even if bestowed by the Ruler himself.

sufficiently strong to make them fight against the invaders.

The peasants were originally holders of land and members of rural communes; they were constantly trying to maintain their rights of freedom of domicile and movement, but the princes and nobles were as constantly attempting to limit and nullify these rights, so that they might not be deprived of the services of the peasants on their lands.

In the reigns succeeding that of the terrible Ivan, the principles of autocracy replaced whatever forms of popular government there had been. The state of the small farmers and peasants slowly became worse and they degenerated into the position of appanages of the land on which they lived.

THE FIRST ROMANOFF WAS ELECTED TSAR BY AN ASSEMBLY

It is a curious fact, and one little appreciated now, that after some years of trouble and rebellion, Michael Romanoff, first Tsar of that name, was *elected* by an assembly. He did not succeed to the throne, nor had he any particular right to be chosen.

Once more for a time the Tatar teachings were forgotten in Russia to some extent and there was a partial return to the older methods.

The fact that Michael had been elected limited to some extent his autocratic powers, the more so as his election was the result of several compromises between the different factions of the nobles and courtiers, and he did not feel strong enough in the support of any one group to oppose the will of other cliques.

He, therefore, returned to the system of obtaining counsel and support from the people by means of "zemskii sobory," which were not exactly parliaments, but assemblies representing different districts and classes of society. In these conventions the greatest part was taken by the representatives of the middle classes. One result of these assemblies was the production of a new code of laws.

But Michael's successor, Alexis, suppressed them and put autocracy firmly on its feet, there to remain until the present day.

ABSOLUTISM WAS THEN NEEDED

However much we may regret the disappearance of popular government from Russia under the early Romanoff emperors, we must admit that it was necessary for the growth and expansion of the Empire. The Tatars probably never would have been driven out when they were under the old system of petty multitudes of principalities, each jealous of the other and intriguing against it at the court of the khans.

Absolutism at that stage of the world's development was needed for the firm control of an enormous territory such as was the Russian plain, which of itself formed no obstacle to foreign invasion and which tended to produce a uniformity of race and government.

Peter the Great could not have done what he did in bringing his country into the ranks of modern States if he had not had an autocratic form of government. He realized fully the influence of the army in establishing him firmly in the new absolutism, and in 1716, in his military statutes, he declared: "His Majesty is sovereign and autocrat. He is accountable to no one in the world."

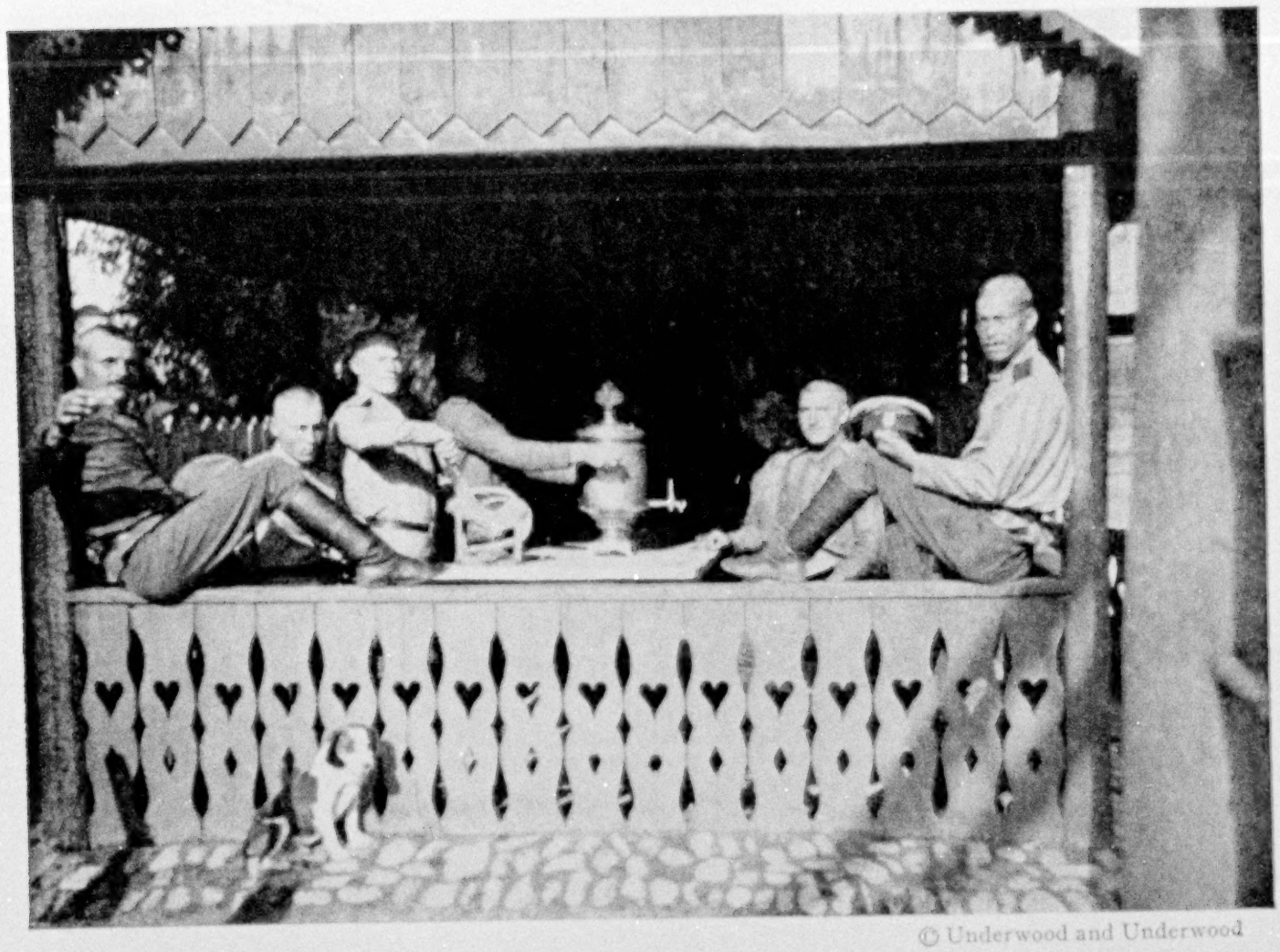
From the time of Ivan the Terrible it was autocracy which, more than anything else, contributed to the long history of territorial extensions of Russia and her prestige, such as it was, abroad. In an endless cycle, territorial expansion led to political extension of this doctrine, and this to new territorial growth.

By the end of the reign of Peter an autocratic emperor was head of the nation, the church, and the army, and held absolutely in his own hands all spiritual and temporal power.

THE RESTORATION OF SELF-GOVERNMENT BEGUN

The famous Emancipation Act of the Emperor Alexander II in 1861 suddenly altered the status of the peasants and from a condition of practical slavery made them freemen once more.

It was soon found necessary to give them a certain share in local self-government and a somewhat complicated adjustment of this matter was arranged. There



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RUSSIAN OFFICERS TAKING TEA IN THEIR CASINO

When, by imperial rescript, Nicholas II put an end to the manufacture and sale of vodka, the national alcoholic beverage, there was much groaning among the 120,000,000 white Russians, but the effect was miraculously salutary, both upon the civilian population and the soldiers.

was a village council called the *volost;* this was composed solely of peasants and was a sort of development historically of the ancient *mir,* or commune, a survival of the old family rule. The *volost,* however, was soon seen to be inadequate and a larger unit, the *zemstvo,* was created by an imperial decree in 1864.

The best English translation of this word, perhaps, is "county council." It is an assembly of deputies from the *volosts,* to which are added a certain number of nobles, so that peasants and proprietors are seated together. Above the district zemstvo again are the provincial councils, consisting of chosen representatives of the lower councils.

This system worked fairly satisfactorily for a number of years and had made the beginning of self-government in parliamentary fashion once more in current use in Russia. In 1889, however, the government decided to have its own direct officers in each rural district, and for that purpose appointed *zemski natchalniki,* or rural overseers, to live in each district.

As these petty officials were appointed not by the people, but by the central administration, their presence was not welcome, and their interference with local affairs and their constant surveillance of the people brought about many conflicts with the local authorities. They were designed to be a sort of guardian for the peasants, on the theory that the latter were unfit to govern themselves, but in reality, of course, they were spies.

The legal economic status of the peasantry, it must be remembered, is that of a minor not fully competent as yet to manage his own business or private affairs.

The decision, however, that the peasants of Russia were not capable of self-government, even in the ordinary affairs of the community, while convenient for the bureaucracy, was not very successful as a way out of the practical difficulties

Photograph from J. C. Grew

THE CATHEDRAL OF ST. ISAAC: PETROGRAD

The magnificent gilded dome of this the largest church in the Russian capital is one of the most impressive landmarks of the great city on the Neva. It was begun in 1819 and completed in 1858 from plans prepared by the French architect, Ricard de Monferrand. The inner height of the great center dome is 269 feet, 44 feet greater than that of St. Paul's in London. Built of granite and marble, the structure cost more than 23,000,000 rubles ($11,750,000). The Senate Building is seen to the right.

Photograph from J. C. Grew

VIEW OF ST. ISAAC'S CATHEDRAL AND MONUMENT OF EMPEROR NICHOLAS I

To the south of this great religious edifice, which is built in the shape of a cross, 364 feet long and 315 feet wide, is Marie Square, in which stands an equestrian statue of Nicholas I, the "Iron Tsar," who at the outbreak of the Crimean War relied upon "Generals January and February" as his best allies against the French, English, Sardinians, and Turks. At the corners of the statue are figures of Justice, Wisdom, Strength, and Faith—sculptured portraits of the Tsar's wife and daughters.

Photograph from J. C. Grew

EKATERINSKAYA CANAL AND THE CHURCH OF THE RESURRECTION, BUILT IN MEMORY OF ALEXANDER II, ON THE SPOT WHERE HE WAS ASSASSINATED

This, one of the four drainage canals of the fashionable quarter of the Russian capital, is faced by many important structures, including the Kazan Cathedral and the Imperial Bank. In the central background is seen the many-domed Church of the Resurrection, erected over the spot where Tsar Alexander II was assassinated. The canal follows a meandering course, but in the main runs parallel to the Great Neva, into which its waters flow at both ends.

arising from the making of freemen out of serfs in such enormous numbers.

BUT THE PEOPLE'S GREATEST NEED—EDUCATION—WAS DENIED

What the great mass of the Russian people needed and what should have been put into execution as soon as the emancipation of the serfs was effected was a system of popular education embracing the whole people, in the course of which they should have received the instruction necessary for their first attempts to resume any self-government on the new scale.

Had this course been at once followed and continued until the present time, it is very doubtful if Russia would have had on her hands the terrible tragedies which followed the emancipation.

The government seemed to be afraid to give the common people any education, even to the extent of allowing them to read and write. It thought, apparently, that with education would come dissatisfaction with the existing form of government, and that with dissatisfaction would come some attempt to bring about reforms.

So the bureaucracy adopted the old expedient of burying its head in the sand and in refusing knowledge to the people. This was naturally only partially successful. Education in schools might be lacking, but it was impossible to keep a hundred and fifty million human beings permanently in the dark and without knowledge as to how the rest of the world was living and progressing.

The Russian peasants may be illiterate, as, indeed, according to statistics, about 70 per cent of them are, but they have the shrewd intelligence of the peasant all over the world, and their sturdy common sense makes up for lack of schooling to a great extent.

Thus, in spite of all opposition, the rural and urban assemblies retained the germ of local government, and in spite of the dual control, as the result of which much of their influence was nullified, they did have a certain value in airing abuses and suggesting improvements. Their existence was often threatened, but never entirely stopped.

Note, however, that there was no national congress or assembly of any kind from the eighteenth century down to the foundation of the new Imperial Duma, in 1906.

THE FIRST NATIONAL CONGRESS IN 280 YEARS

The members of this body were to be chosen by electors from all over the country. The new law gave the suffrage to every man over 25 years of age who had a fixed domicile and a certain property qualification. In rural districts those peasants had votes who were fathers of families, together with the rural landowners, nobles, merchants, and members of the clergy; in the cities, State officials, members of the public services, and proprietors with certain qualifications. Industrial workers who could prove six months' continuous labor in establishments having at least fifty employees could also vote.

The Duma could express views, but was nearly helpless in carrying into effect any reforms. But it had a certain influence for good in its very existence, and after a succession of abortive sessions, the later assemblies developed a courage which was truly remarkable when the forces opposed to it are considered.

It is not too much to say, in the light of recent events, that the Duma and what it stands for is responsible directly and primarily for the overthrow of the Romanoff dynasty and the establishment of a new form of government in Russia.

The reason for the failure of the revolutionary movement which convulsed Russia in the years immediately succeeding the Russo-Japanese War is that the methods were too radical and too reminiscent of the old nihilism to be popular, even with the milder groups of revolutionists.

The arguments of that time consisted in bombs thrown at unpopular ministers or officials who, although not disliked personally, were supposed to embody the principles of the autocratic régime too closely. It is doubtful if these enthusiasts ever had the support of any large element of the Russian population out-

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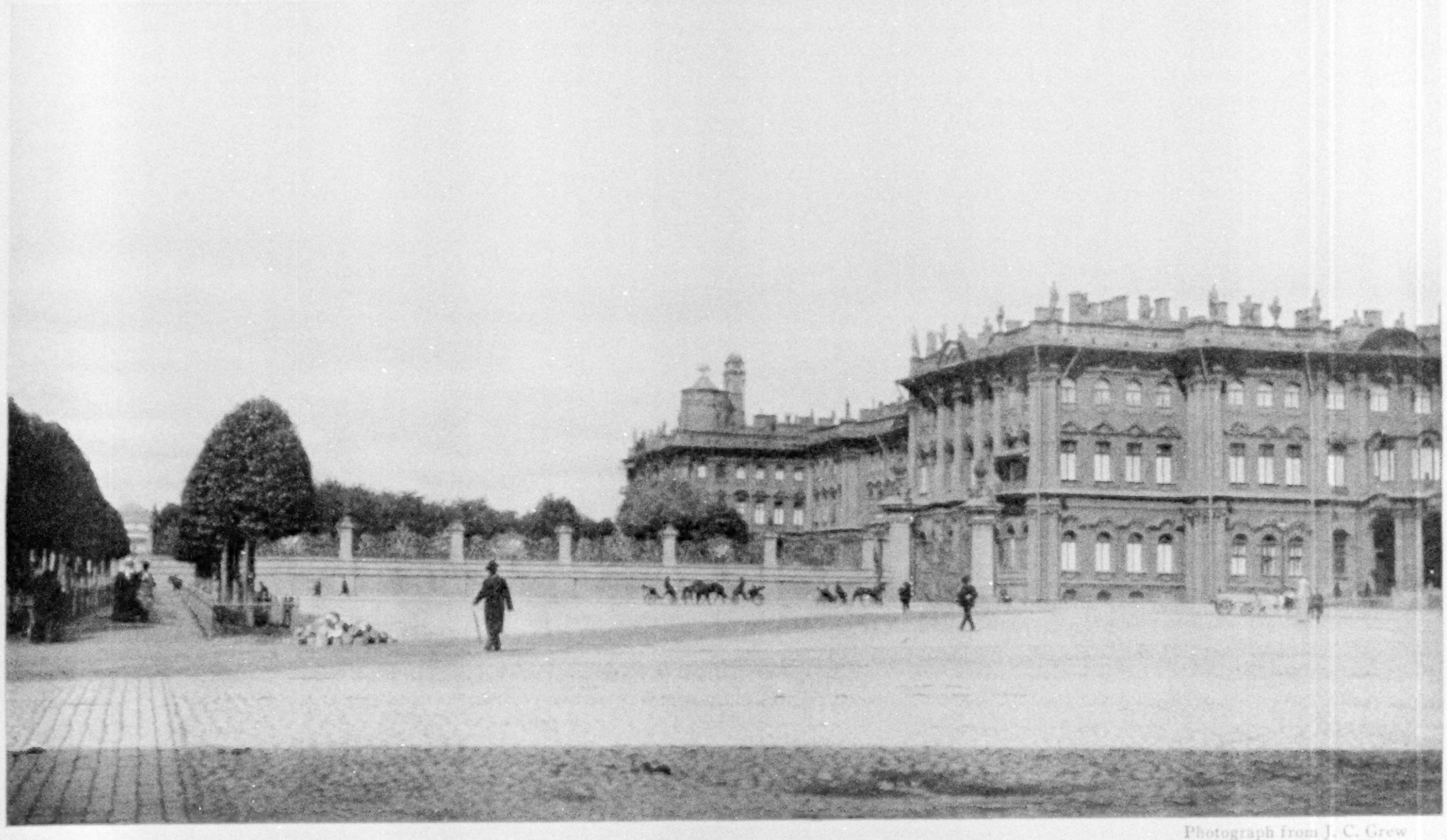

Photograph from J. C. Grew

CORNER OF THE WINTER PALACE: PETROGRAD

Since the completion of this royal residence under the direction of Catherine the Great it has been the winter home of the reigning autocrat of Russia. It was finished more than 150 years ago, but was partly destroyed by fire during the second quarter of the nineteenth century. Facing the River Neva, it spreads over more than four acres of ground. On the west side is a garden laid out by the recently deposed monarch.

side of the acknowledged "advanced" visionaries.

The leaders of the movements of 1905 and the succeeding years were men whose abilities and whose methods in no way held the confidence either of the middle classes or the peasants.

In fact, what with the devotion of the peasant to the "Little Father" as typifying the supreme head of Church and State, and his innate distrust of all strangers, it had never been possible for the revolutionists to get any wide support among the lower classes. In many cases the transplanted peasants who made up the industrial classes in the cities had quite openly taken that side, but industrialism as opposed to agriculture had never enough votaries to make their support effective.

The riots and general disturbances of 1905 were largely confined to the cities and to workers on the various railways who had been in sufficiently close touch with urban life to make them quicker to feel the need of change and progress.

THE PRESENT LEADERS ARE FAR-SIGHTED

The leaders of the new movement, however, have learned their lesson. Instead of sporadic instances of terrorism, followed by violence, they have entered upon a campaign of education, carried out systematically and with restraint, for the purpose of having all the people with them when the opportune time to strike should come.

They eagerly seized the opportunity of the war and its consequent needs to illustrate in a practical way how much better they could manage things if given the power, and the Russian, who may be slow, but who is not dull, has learned the lesson so graphically put before him.

It is, of course, too soon after the stirring events of the last few weeks to estimate with any degree of accuracy just what result the overthrowing of absolutism will have on the future of the Russian people. The peasants—that is, of course, the vast majority of the inhabitants of the Empire—have, since the emancipation, been singularly indifferent to their government except in the way of interest in the whole agrarian question.

If the dynasty and the bureaucracy had seen fit to give the peasants a satisfactory solution of the problems arising from land ownership, as they so easily could have done, I doubt greatly if there would have been any revolution at the present time.

Even a fairly good rule would have satisfied these simple people. The limited amount of self-government they enjoyed in the rural assemblies, hampered though it was, was enough for the most pressing questions of local interest.

These assemblies, however, naturally had no authority to dig down to the root of the peasants' grievances—the unequal distribution of land and the lack of any just system for adjusting complaints thereon—and could not on that account be considered satisfactory.

What undoubtedly had more effect than anything else in influencing the peasant favorably toward the new government and against the old was the fact that shortly after the beginning of the present war it was seen that the regular commissariat department of the War Office was quite unequal to carrying out the tasks imposed by the mobilization of the millions of men called to the colors in Russia, namely, of provisioning, clothing, and transporting the men according to requirements.

ASSOCIATIONS OF THE PEOPLE

The first mobilization was carried out in 1914, in the summer-time, and did not entail any great amount of physical hardship on the recruits. When the winter of that year had arrived, however, and the cold had made transportation difficult, the suffering was great.

In many cases troops had to be sent several weeks' journey by rail in unheated freight cars, without any conveniences, and if it had not been for the splendid work of the zemstvo committees thousands would have frozen and starved.

Each local assembly, both in city and country, formed special committees, as they had done in the Japanese war, and, working with that perfect spirit of cooperation which distinguishes Russians of every walk in life when interested in any common object, they rapidly and

XUM

Photograph from J. C. Grew

THE BIGGEST MONOLITH OF OUR TIMES—THE ALEXANDER COLUMN: PETROGRAD

In the center of the Dvortzovaya Square, before the Winter Palace, towers this huge pillar of polished red Finnish granite, nearly 160 feet high and 13 feet in diameter. The height of the whole monument, including the bronze angel clasping a 20-foot cross, is 153½ feet. It was erected in 1834 by Tsar Nicholas I to the memory of his brother, Alexander I. On the side facing the Winter Palace is the inscription, "Grateful Russia to Alexander I."

energetically took over practically the whole task of providing food and other needed supplies for the soldiers.

Booths were established at railway stations where the men could get bread and hot tea on the arrival of the troop trains; nurses and doctors were on hand to look after any who might need their services, and a whole system of first aid was soon in effect.

Soon it was found necessary for these committees to take up the question of buying supplies in quantity and in transporting these supplies to where they were needed. This was followed by the organization of boot and clothing factories, help in munition works, and gradually, but steadily, the zemstva took over practically every function of the quartermaster's department of the army and navy.

THE DISAPPEARANCE OF THE DRUNKARD

Another phase, and one perhaps as important, if not more so, than the develop-

Photograph by Gilbert H. Grosvenor

A STREET SCENE IN MOSCOW, RUSSIA

The low-hung, single-passenger vehicle, with its ponderously yoked horse, is as typical of Russia as is the howdah-equipped elephant of India or the man-power jinrikisha of Japan. Carriages for infant Russia are not in universal use, however, as evidenced by the little mother in the picture with her arms full of baby.

AFTERNOON TEA IN RUSSIA

The popularity of the cup which cheers but does not inebriate has increased enormously since vodka went out of fashion. Another favorite table beverage of the Russians is kvass, the liquor drawn off soaked black bread or white bread.

ment of popular aid to the military forces of the country, is the immense expansion of the already existing coöperative societies since the beginning of the war. This growth is very closely connected with the abolition of vodka and the consequent entire sobriety of the whole nation for a period which is already of nearly three years' duration.

Strong drink had always been the one absolutely essential thing for the peasant. Whatever else he lacked, he must have his drunken spree once in so often, and no obligation, no duty, and no work ever interfered with the far more important task of periodically getting drunk.

As each spree took at least three days' time—one day to get drunk, one to lie drunk, and one to recover his senses—the working time of the average peasant was greatly diminished. To this was added the due observance of all State and Church holidays and anniversaries, and also bad weather, so that in all probability 150 days would be a large labor average for a year.

When the Emperor "by a stroke of the pen," as is so often said, wiped out the great curse of drink from the people, he not only added greatly to their economic forces, but to their military fitness. It is now widely felt that one of the most potent reasons for the ill-success of the Russian arms in the Japanese war was the constant state of intoxication of so many of the officers and men.

With the ending of vodka, however, a great deal of spare time was thrown on the people. Drinking was one of the chief amusements of millions of men who could neither read nor write, and if disorders, if the mischief which Satan always finds for idle hands, was to be avoided, something must be substituted in the way of clean and healthful recreation.

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SIBERIAN HIDES AND VILLAGE OF THE TATARS: NIZHNI-NOVGOROD, RUSSIA

Live-stock breeding is second to agriculture as a pursuit among the inhabitants of Siberia, a region one and a half times as large as all Europe and forty times larger than the British Isles.

It must be remembered that, as a result of the dislike of the authorities for all assemblies of people, no matter of how innocent a character, there had been practically no lectures, concerts, theaters, or other forms of pastime, if we except the excellent military band concerts in the public parks on summer evenings.

One of the first cares of the coöperative societies, with their millions of members, after the abolition of drink was to get up diversions for the neighborhood, which were usually held in the lofts over the coöperative stores or warehouses in the villages. Cinematographs, amateur theatricals, concerts, and other community activities were started and had great success.

The money once spent for drink now stays in the peasants' pockets or is put in the rural branches of the government savings bank, and the total deposits of that institution have swelled incredibly in the past two years.

GROWTH OF THE PEOPLE'S ASSOCIATIONS IS PHENOMENAL

The growth of these coöperative societies has been phenomenal. For instance, in one district alone the number has been

increased from 50 to 302. The societies for wholesale purchase have increased from 40 to 400.

There are now 60 credit unions working, with some 10,000 separate coöperative credit societies. In Moscow there has been organized a Central Coöperative Credit Bank, which in 1915 did a business of $140,000,000.

It is impossible to imagine how widespread have become the ramifications of these unions and societies. There are now building or in operation flour mills, oil works, starch works, paper and sugar plants, and machine shops. In one town we have an electric-light plant, giving people light for a dollar a year.

There is no doubt that in thus helping their members to the number of millions these societies have in no small degree contributed to the military successes of Russia, for in every instance they can be found working in close harmony with the committees of the zemstvos engaged in the buying and furnishing of the enormous quantities of supplies needed by the armies.

Under the leadership of devoted and able administrators, the numberless committees appointed by the various zemstvos have been untiring in reaching out for new fields of activity, and only the suspicion and jealousy of the official classes has prevented them from turning Russia into one great communistic settlement.

The catalogue of the work undertaken and carried to success by these committees would be long and meaningless. Some of the more interesting of these phases, however, may properly be touched upon.

Let us take, for example, almost any point on any railroad leading from the interior to the fighting front of Russia at the present time. As you emerge from your railroad car at the station, you probably see on a switch in the yard a long train of cars painted gray, with big, red crosses on the sides, and, on looking closer, you can read, "Hospital train for active army service of the . . . Zemstvo." Into this train stretcher-bearers are carrying wounded men from motor ambulances outside the station, similarly marked, which have just come in from the temporary hospitals established by the same committee just behind the lines of trenches.

IN COÖPERATIVE EFFORT RUSSIA CAN TEACH US MUCH

Nurses, orderlies, doctors, medicines, and dressings—all are provided by these same units and without expense to the government. In each city, town, and village women are organized into groups—sewing, making bandages, knitting warm sleeping things, or doing something else useful—much as they are in all the other belligerent countries, but with a far greater degree of coördination and less of confusion and duplication of effort than is to be found anywhere else.

In a country so singularly inefficient as Russia is in many ways, there is yet much for us to learn in the way of coöperative effort and aid.

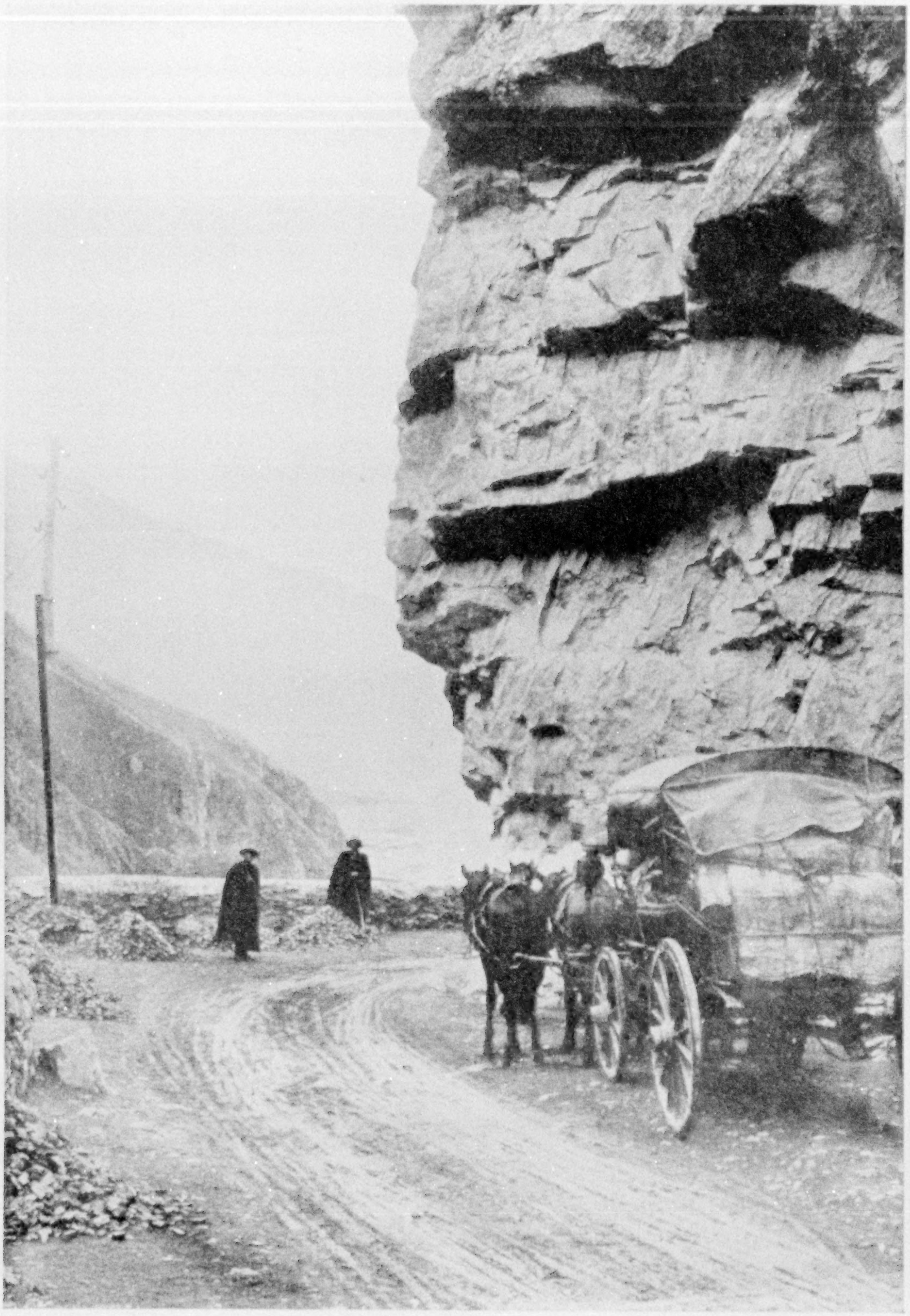
One of the most interesting private institutions, which works along the same lines as do the committees just described, is what is known as "Purushkevitch Points." Mr. Purushkevitch has been a member of several of the Dumas, and at the beginning of the war organized at his own expense a number of "points."

I visited and made a thorough inspection of a "point," situated not far from the city of Dvinsk, on the northern front of Russia. We started out in a fast American automobile and, after going as far as was thought safe for the car toward the front-line trenches, we left it and proceeded on foot to the point. This was a settlement some couple of miles behind the front trenches.

A Sister of Mercy was in general charge of the whole work. Under her were three doctors—men too old for the active work at the front, but quite ready to perform any minor operations or give any necessary dressings or other aid. They had a well-equipped hospital in a tent surmounted by a large Red Cross flag.

Other tents were dining, dressing, and sleeping rooms, and still others contained supplies and quarters for the large staff of orderlies and attendants.

The sister in charge told me that there



Photograph from Boston Photo News Company

THE GEORGIAN MILITARY ROAD OVER THE CAUCASUS

This great highway, over which motor omnibuses are operated regularly in peace times for six months of the year (April 15 to October 15), is one of the most beautiful mountain roads in the world. It ascends the valley of the Terek and crosses the Krestovaya Pass at an elevation of 7,800 feet, then descends to the famous city of Tiflis. It was under construction for more than half a century, being completed in 1864. For a distance of eight miles the road runs through an awe-inspiring gorge, flanked by precipitous walls of rock more than a mile high.

THE RED SQUARE: MOSCOW

Lying between the Kremlin and the Inner City, this great space in the heart of Moscow has an area of more than thirty acres. To the right is seen a part of the battlemented wall of the Kremlin. In the center of the picture is the unforgettable Cathedral of St. Basil. To the left may be seen a portion of the front façade of the famous Trading Rows, erected at a cost of nearly $8,000,000 (including the site), for wholesale and retail shops and offices. The Historical Museum and the Kazan Cathedral bound the square on the fourth (north) side.

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Photograph by H. S. Cresswell

VIEW OF THE KREMLIN FROM THE BRIDGE OPPOSITE THE CATHEDRAL OF OUR SAVIOUR: MOSCOW

This ancient, fortress-like triangle, occupying an entire quarter of Russia's second city and medieval capital, is the historic center and sacred shrine, the very heart of the great Slav empire. The palace of the Tsar, surrounded by government buildings and churches, is girded by a battlemented brick wall a mile and a quarter in circumference and 65 feet high. Nineteen towers stud this wall and five great gates afford access to the conglomerate mass of buildings which constitute a great nation's treasure-house of sacred, historic, and romantic associations. The Kremlin is to Russia what the Roman Forum and St. Peter's combined are to Italy.

A RUSSIAN PEASANT FAMILY AND TEAM

The good-roads movement has not yet reached the great Slav empire, which embraces one-sixth of the landed area of the globe. The highways, as a whole, are tortuously rough and in certain seasons almost impassably muddy, so that the carts of the peasants must be designed to resist heavy strains. The large wooden yoke is universal in Russia.

Photograph from H. S. Cresswell

A FAMILY GROUP IN A SMALL MANUFACTURING SUBURB NEAR MOSCOW

While it would, perhaps, be an exaggeration to speak of this as a "typical" Russian household, large families are the rule in the Muscovite empire. In spite of a high mortality rate, the excess of births over deaths is greater here than in any other leading country. The population increased 100 per cent in the forty years between 1872 and 1912.

Photograph from H. S. Cresswell

THE HOUSE OF A RUSSIAN VILLAGE POSTMAN, NEAR MOSCOW

There is no rural free delivery in Russia. In the country districts the addressees are required to call for their own letters at the nearest post-office or railway station. Restaurants, hotels, and shops, as a rule, charge a commission on postage stamps. One of the peculiar rules of the Russian postal service has been that letters containing money are liable to confiscation unless a declaration is made before mailing by the sender. Notice shoe sign over door, showing that a man lives inside who can repair and make shoes.

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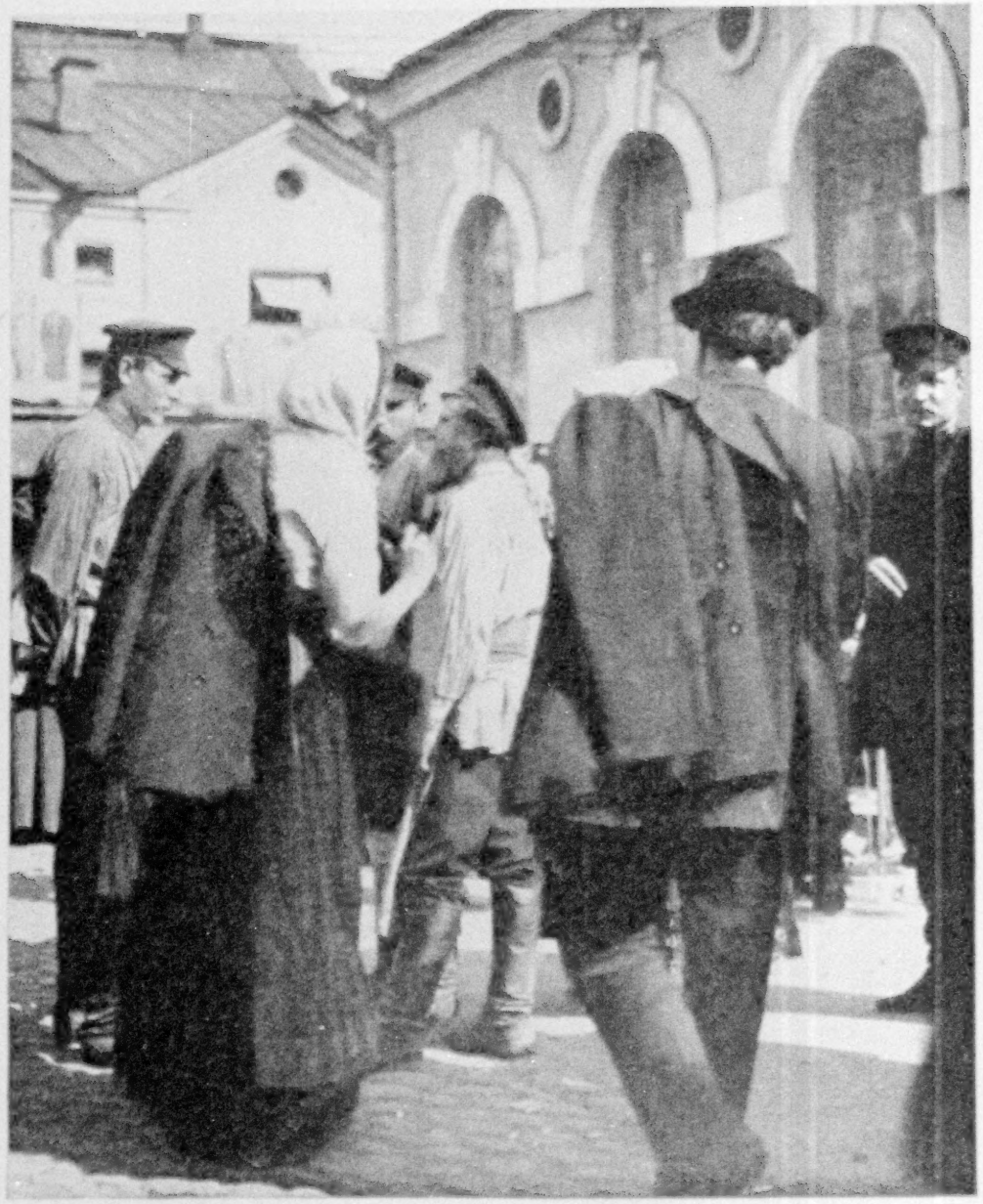
SCHOOLMASTER AND BOYS: MOSCOW, RUSSIA

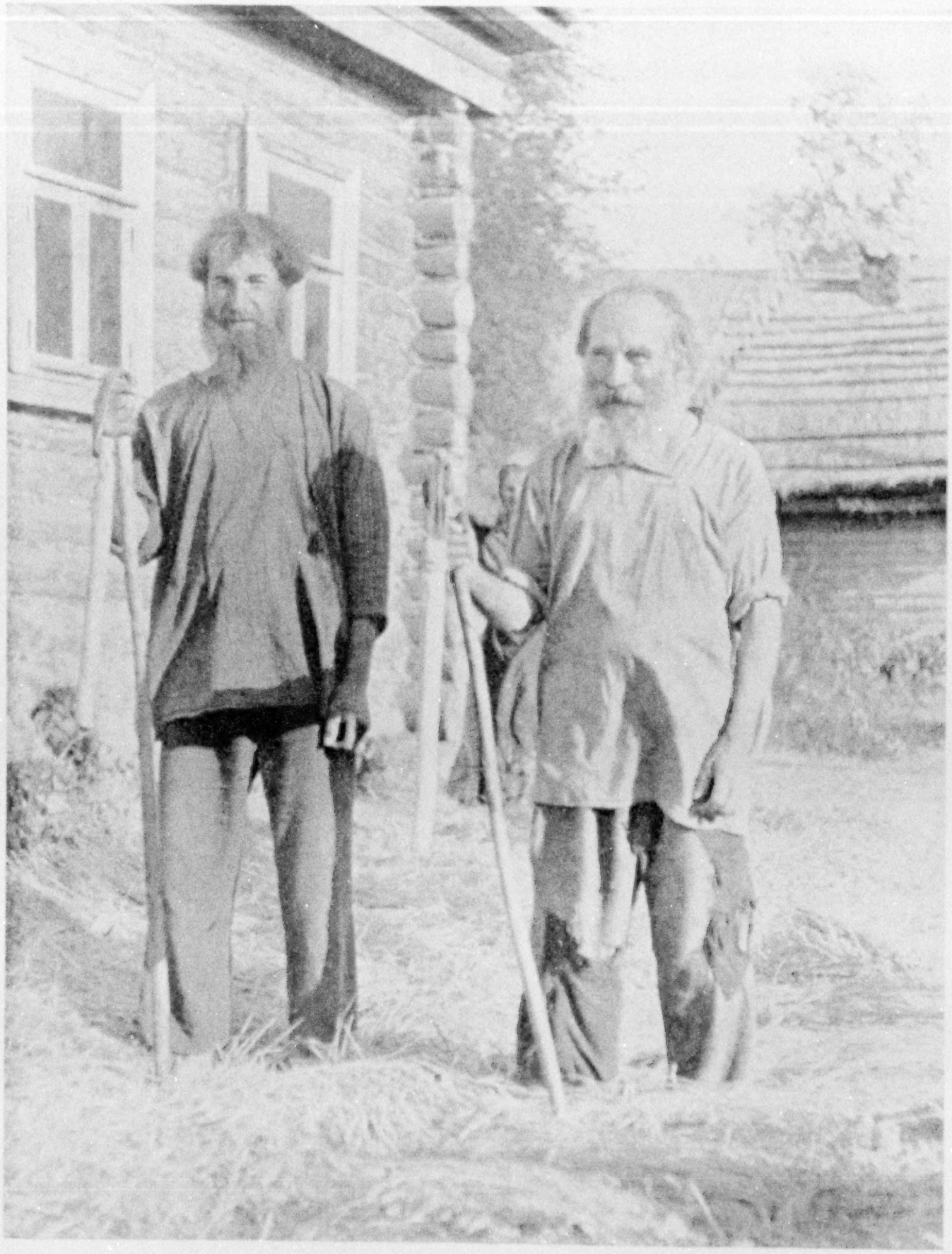
The percentage of illiteracy in Russia is higher than in any other civilized country. According to the most recent estimates (1908), only 211 persons out of every 1,000 can read and write. But these conditions are being remedied rapidly, for a census taken during the last decade of the nineteenth century showed that at that time only 50 out of every 1,000 could read and write. Illiteracy among the women of Russia is far greater than among the men, the proportion being more than two to one.



Photographs by Gilbert H. Grosvenor

OF SUCH IS THE EMPIRE OF RUSSIA

A kindly, noble race of tremendous vitality and fecundity, in which the leaven of national intelligence has begun to work with amazing rapidity and power. Their inheritance is a land of fabulous resources and unlimited potential plenty; the possibilities of their development under a liberal and enlightened government enthrall the imagination. Truly, "the world is all before them now, and Providence their guide."



Photograph by C. S. Alden

SAFETY RAZORS HAVE NEVER BEEN POPULAR IN RUSSIA, AS BEARDS ARE THE FASHION

Only about one-half the land of the province of central Russia known as Nizhni-Novgorod is suitable for agricultural pursuits, and of this three-fifths is owned by noblemen and only about one-sixth by the hardy peasantry. Although much of the land is the fertile "valley black earth," the yield of wheat, rye, barley, oats, and potatoes is frequently insufficient for the population, so that nearly every year more than 100,000 persons leave their villages in quest of temporary work in neighboring provinces, or "governments," as the more than one hundred subdivisions of the empire are called. Owing to the efforts of the Nizhni-Novgorod zemstvo, there has been more progress in education in this district than in many of the other governments.

had formerly been three sisters there, but that the cold and dampness had been too much for the others, who had been forced to go home to recover their health. She showed me a new hut which was being built for her under the shelter of a near-by hill, which it was hoped would be drier and more comfortable than the tent she had.

There are about 25 of these "points" scattered at various places along the front, and the intention at each one of them is that anybody who comes along shall be taken in, whether prisoner, officer, visitor, general, or private, and given whatever he may be in need of.

Facilities are provided for hot baths and clean suits of underwear for tired soldiers; good and bountiful meals are supplied smoking hot for any one who is hungry; beds are there for as long a stay as may be found necessary, and in no case are questions asked.

I enjoyed a very good dinner during my visit. The fittings were of the simplest, but everything was clean and good. I peeked into the bath-house and found there some half dozen soldiers thoroughly enjoying a steaming vapor bath. They had just been allowed to come from the trenches and were shortly going back. Other groups of soldiers were lying about at rest, enjoying a smoke and perhaps a game of some kind.

This work is the nearest approach to what would be called Young Men's Christian Association effort in this country which I found anywhere on the Russian front. In general the men simply lie around their barracks when they are not working, unless they are attending church or playing some game in the open.

Photograph by Gilbert H. Grosvenor

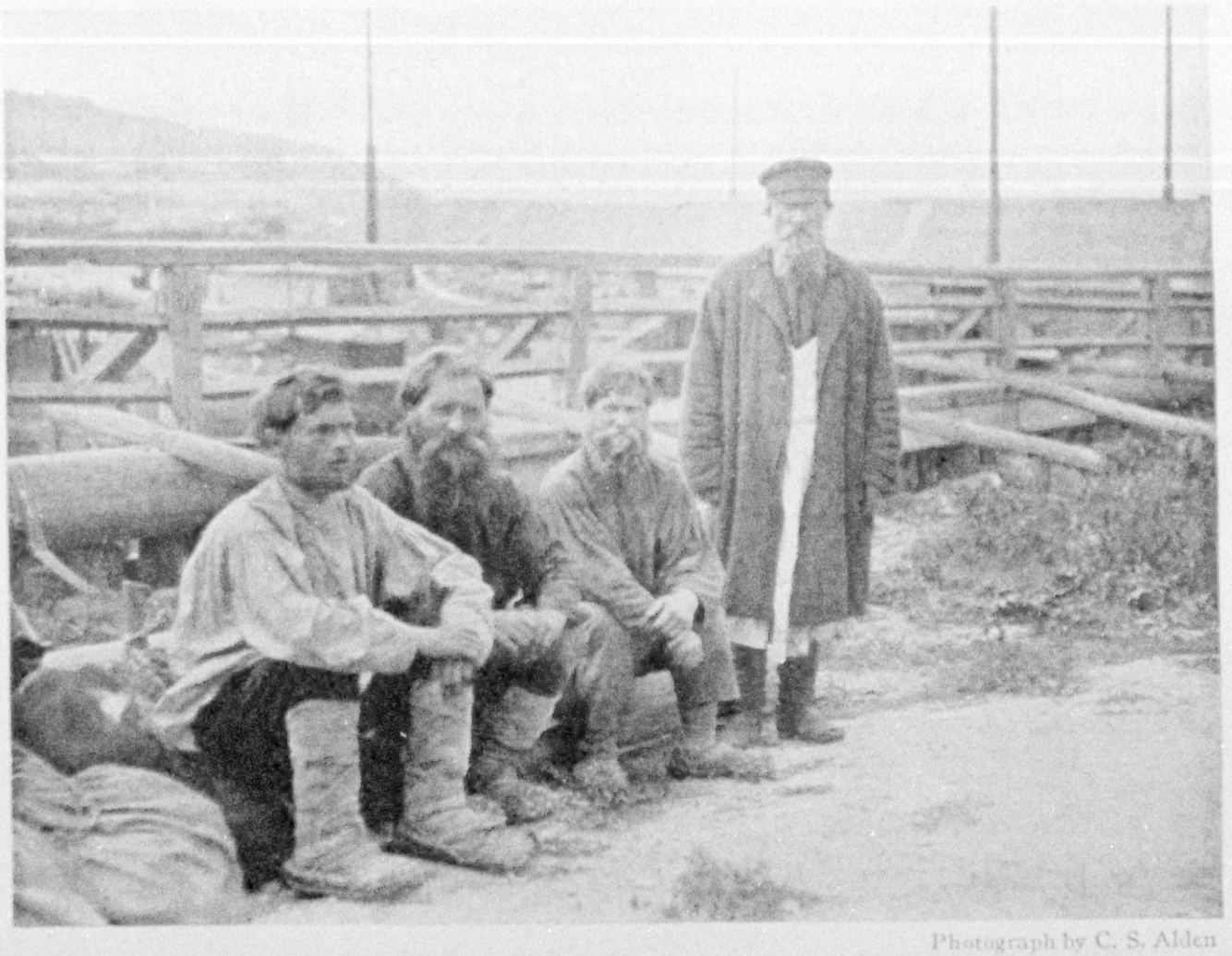
A FEATHERED FORTUNE-TELLER AND HIS KEEPER AT THE FAMOUS NIZHNI-NOVGOROD FAIR

THE GRATITUDE OF THE SOLDIERS

All of this work was at first greatly resented by the officials who should have done it themselves, but before long even they realized what was being done in this quiet, inconspicuous way, and today the whole army realizes that without this splendid service the war, so far as Russia is concerned, would have been over long ago.

Under these circumstances the defects of bureaucracy and the good work of the unofficial organizations became more of a reality to the peasant soldier than they could otherwise have been, and his gratitude, while silent, was none the less sincere.

The zemstvo assemblies, which have long been the most liberal influences at work in Russia, have now become the most popular. They have unbounded in-



Photograph by C. S. Alden

RUSSIAN PEASANTS AT THE FAIR: NIZHNI-NOVGOROD

Situated on the River Volga, the great artery of Russian trade, Nizhni-Novgorod is world-famous for its fair, held each year from July 29 to September 10, during which time the value of goods sold and ordered sometimes amounts to nearly $200,000,000. Cotton, woolen, linen and silk stuffs, furs, iron ware, pottery, salt, fish, wines, teas, and leather are important articles of barter. As the capital of the government of the same name, the city ordinarily has a population of 100,000, but during the fair it is visited by 400,000 people from all parts of Russia and many points in Asia. The importance of the trading center dates almost from its founding, in 1221, as a barrier against the inroads of the Mordvins and Bulgarians.

fluence on the people, and under the able and devoted leadership of such men as Prince Lvoff, President of the Association of Zemstvo Committees, and other patriots, they have, more than anything else, contributed toward the present changes in Russia.

The Liberal element, under the leadership of men like Paul Milyukoff, now Minister for Foreign Affairs; Alexander Guchkoff, President of the Third Duma, and a small group of far-seeing men, has had to contend, on the one hand, with the old regime, the dynasty, and the bureaucracy, and on the other with that far larger number of men and women who in their desire for a new and free government have not stopped at any means to attain their ends, and whose preaching and carrying out of the doctrines of anarchy and terrorism have retarded by so many years the establishment of free and representative government throughout the length and breadth of the great Russian Empire.

RUSSIA'S STRENGTH

What will be the result of the revolution on the present war? That is the question now uppermost in the minds not only of Allied statesmen, but of every one in the United States as well. Certainly, in a general way, this is not difficult of answer.

If the new leaders can succeed in bringing actively to their side, without foolish opposition from the more radical elements, the vast majority of the people and the rank and file of the army, they will have no trouble in bringing, or rather

Photograph from Boston Photo News Company

THE CHURCH OF THE IMPERIAL PALACE OF PETERHOF

Eighteen miles from Petrograd is the town of Peterhof, founded by Peter the Great in 1711. The imperial palace is built in imitation of Versailles, the main building being in three stories and connected with the wings by galleries. It was built by Peter the Great in 1720 and enlarged 30 years later for the Empress Elizabeth Petrovna. This church, with its five gilt cupolas, is the work of Rastrelli.

keeping, Russia in the war, in a position of greatly increased strength and vigor.

The mere fact that in the course of a long and bloody war Russia has been able at the same time to fight her foes at home and abroad proves most strongly her innate strength and steadfastness.

I have often been asked why Russia has not done better in this war; why, with her millions of man-power, she has seemed to have had victory time and time again in her grasp only to lose it by some mistake.

It has been impossible to make people realize what Russia was fighting—two foes at once, more than any of the other nations engaged in the war has had to contend against. We shall probably not know for long, if ever, what a struggle has been carried on within Russia against the forces which sought to deliver her helpless and bound to her enemies abroad.

Up to now the news has all seemed to favor the probability that the new Russia will succeed in forming a stable and powerful government on the ruins of the old, and in doing so she will have the earnest good wishes of all her allies and all her friends, and in the latter category may now be placed for the first time the whole of the United States.

For it must be admitted that in this country one of the strongest reasons for not entering the war, either actively or passively, on the side of the Allies has been the thought that in so doing we were backing Russian absolutism, the antithesis of everything for which our own form of government stands, the symbol of absolutism and terrorism, of autocracy against democracy, of darkness against light.

REPUBLICS—THE LADDER TO LIBERTY

By David Jayne Hill

Formerly U. S. Minister to Switzerland, to the Netherlands, and Formerly Ambassador to Germany

IF WE spread out a map of the world, for the purpose of comparing the territorial extent of the different kinds of government existing at the present time, we find that the area covered by "republics" occupies approximately 30,250,000 square miles, or considerably more than one-half the habitable surface of the globe.

If we add the area of the British Empire, the spirit of whose government is now entirely democratic, and whose "autonomous colonies," as the Dominions are now called, are virtually republics, the area of free government reaches the enormous total of about 41,500,000 square miles, or about four-fifths of the inhabited earth.

Turning now to the proportions of the population of the globe under the "republics" and other forms of government, we find that of the total inhabitants of the earth, estimated at 1,600,000,000, more than 850,000,000 are living under nominal republics; and if we add the population of the British Empire, which may be called a commonwealth of republics, the total would be about 1,250,000,000, or more than three-fourths of the human race.

If to these areas and populations we add those under constitutional governments, excluding all those under avowedly absolutist rule, we find only a small fraction of the globe still adhering to a system which only a century and a half ago was practically universal (see maps, pages 242 and 243).

FEW REPUBLICS IN 1776

These facts are the more astonishing if we consider what the result of such an examination would have been if made, let us say, in the year of our Declaration of Independence, 1776. At that time there would have been found upon the map of the world, apart from a few isolated so-called "free cities"—like Ham-

burg, Lübeck, Bremen, and Geneva—only three or four little patches of color to which the name "republics" could properly be applied—the United Netherlands, the Swiss Confederation, the Republic of Venice, and the Republic of Genoa.

At an earlier time there would have been found on the map of Europe a number of Italian city-states, like Florence, Padua, and others, that were called "republics," and one great area marked on the map as Poland, which was also called a republic; but in 1776 the Italian republics, with the exception of Venice, had totally lost what liberties they had previously been able to maintain and had become hereditary despotisms, while Poland, after having been partly partitioned between Prussia, Russia, and Austria, had sought refuge from utter dissolution by becoming in effect a protectorate of Russia.

With these examples before us, it would be extremely difficult to frame a definition of the word "republic," expressed in positive terms, that would fit all of them; for no two of them were in all respects alike. Not one possessed a written constitution in the modern sense. Not one admitted universal suffrage. The one common characteristic was the negative quality of repudiating an overlord.

They were *not,* as the national monarchies—with the exception of Britain—at that time were, the private possessions of dynastic rulers, who regarded the territory over which they ruled as crown estates and their inhabitants as subjects, to be transmitted by heredity from generation to generation or acquired by marriage, like ordinary private property.

In the commonwealths called "republics" the *res publica* was considered as vested in the community as a whole, especially with regard to legislation and administration; and yet the relation of the individual to the State was not very precisely defined in any one of them.

The prominence of negative over positive attributes in these eighteenth-century republics is explained by the fact that they were all brought into being by revolt against some form of arbitrary power. They were monuments of protest rather than embodiments of a constructive idea.

VENICE A REPUBLIC IN NAME ONLY

Venice, the oldest of these four attempts at self-government, was founded by refugees from the Italian mainland, who in the fifth century had sought refuge from the power of Attila in the islands of the lagoons at the head of the Adriatic. For self-preservation the islanders united, elected a leader, or doge, and formed a new State. This community was long considered as a dependency of the Eastern Empire, from which it did not become wholly independent until the tenth century.

In perpetual conflict with the imperial pretensions of the East or the West, Venice became through commerce and conquest a great maritime power, dominating not only the Adriatic and the lands bordering upon it, but also many of the ports of Greece, and possessing even a portion of Constantinople, which it held until the capture of that city by the Turks, in 1453, to whom it continued to offer a long and courageous resistance. At the end of the fifteenth century it had become the first maritime power of Europe, an ascendency which it did not entirely lose until the discovery of the sea route to India by the Cape dealt its commerce a death blow by making the Atlantic the main highway for Eastern trade.

Venice was never in reality a democracy. The doge, elected for life, in conjunction with the Senate, the Council of Ten, and other aristocratic bodies, ruled at times with almost absolute authority.

Although the Venetian republic was in no sense a democracy, it is interesting to trace the development of its safeguards of liberty. The perils to which the republic was exposed required both unity and continuity in the direction of its affairs. This use of centralized power was confided to the doge, but it was intended that he should never become a monarch.

Living, he was subject to the advice of the councils and the restraint of many legal limitations; and, even when dead, his administration was open to review by an examining body, and in case of condemnation reparation was exacted of his

XUM

MAP SHOWING DISTRIBUTION OF REPUBLICS IN 1776, THE YEAR OF OUR DECLARATION OF INDEPENDENCE

The white denotes the republics, United States, Venice, Genoa, Switzerland, and the Netherlands; black represents areas where the government was autocratic

XUM

MAP SHOWING DISTRIBUTION OF REPUBLICS AND DEMOCRACY IN 1917

White represents the republics; light gray the British Empire, whose citizens live under a government as democratic as our own. The next shade represents constitutional monarchies, like Sweden, Holland, and Italy; and the black, autocratic monarchies.

heirs. Although elected for life, the average service of a doge did not in fact exceed sixteen years, only men of middle age being regarded as eligible to the office.

The oath of the doge involved an explicit renunciation of sovereign rights. He was required to promise not only to execute the laws and decrees of the councils, but not to correspond directly with foreign powers, or to open letters addressed to him, even by Venetians, without the presence of a councillor. He could hold no property outside the territory of Venice; he could not intervene in any judgment, either of fact or of law; none of his relatives could be appointed by him to any civil, military, or ecclesiastical office; he was prohibited from permitting any citizen to kneel before him or kiss his hand. But as a symbol of the State he was clothed with magnificence, and stood before the world as the outward representative of supreme power.

GENOA WAS LIKE VENICE

Like Venice, Genoa, which was founded as a city in the eighth century B. C., in the tenth century of our era threw off the imperial yoke and became an independent republic. Like Venice, it also developed into a great maritime and commercial power, extended its territory by conquest, and was the possessor of valuable colonies. Subjected to French rule in the fourteenth century, it afterward regained its independence, but in 1746 fell for a time under the power of Austria. By 1776 it had lost most of its colonies, having been obliged in 1768 to cede Corsica to France.

Internal discord had completely delivered the republic into the hands of the aristocratic party. Four hundred and sixty-five families of the nobility were inscribed in the "Golden Book" and divided among themselves all the public powers, honors, and offices, to the exclusion of the middle class and the common people. A Council of 400 members chose the Senate; the Senate chose the eight governors who formed the Executive Council, and this body chose from its own number the doge, who represented the nation.

THE SWISS REPUBLIC IS VERY OLD

Altogether different in form and structure was the Swiss Confederation. It, too, came into being through a revolt against external authority. The three "Forest Cantons"—Uri, Schwyz, and Unterwalden—comprised in the duchy of Suabia had fallen under the rule of the counts of Hapsburg. Upon the death of Rudolf, in 1291, "in view of the malice of the time," these cantons formed a defensive league and resolved to recognize no chief who was not of the country, and to maintain the peace and their rights by their own armed force.

The parchment upon which their compact was written is still preserved, and bears as seals the cross of Schwyz, the bull's head of Uri, and the key of Unterwalden.

This document was not a declaration of independence and retained a trace of feudalism; for it enjoined that "whoever hath a lord let him obey him, according to his bounden duty." But it was a declaration of rights and a firm resolution that they should never be taken away by the power of a usurper. The efforts of the Hapsburg emperors to reduce the cantons to subjection gave repeated opportunities for the fulfillment of this pledge.

In 1513 the Confederation had grown to thirteen cantons, Berne, Zürich, Lucerne, Friburg, Zug, Glaris, Bâle, Soleure, Schaffhausen, and Appenzell having united with the "Forest Cantons"; but this expansion had entirely transformed the original league. Subject territories, added by conquest, now formed part of the republic. The cities had contributed decisive elements of change, for they were less democratic than the "Forest Cantons." In truth, in some instances, the cities had developed the attributes of ambitious and oppressive oligarchies.

A CHILD OF BLOOD AND HEROISM

Like the Venetian and the Swiss republics, the United Netherlands was a child of revolution, but of a far more dramatic kind. In November, 1565, twenty confederates met at Brussels to form a league to resist the Spanish In-

Photograph by Edwin Levick

THE STATUE OF LIBERTY IN NEW YORK HARBOR

This glorious symbol of freedom, towering 300 feet above the waters of New York harbor, was purchased by popular subscription and presented to the United States by the people of France in commemoration of the hundredth anniversary of the Declaration of Independence and in token of the undying bond of sympathy and friendship that exists between the citizens of the two great republics—a love which Lafayette and Rochambeau brought into being more than a century ago. The statue itself is 151 feet in height from base to torch, and is the work of the eminent French sculptor, Bartholdi.

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Photograph by Rau Art Studios

THE CRADLE OF LIBERTY—INDEPENDENCE HALL: PHILADELPHIA

In this hall our Declaration of Independence was signed, July 4, 1776. Here Washington received his commission as Commander-in-Chief of our armies. A few yards away, facing Independence Square, is Congress Hall, in which the Congress of the infant republic held its sessions from 1790 to 1800 and in which Washington was inaugurated for his second term as President.

quisition, and in the following year a wave of popular indignation against the royal edicts, which condemned to be burned fifty or sixty thousand persons, swept over the Netherlands.

The Duke of Alba was sent to execute the orders which the Prince of Orange refused to obey and to exterminate the heretics. A reign of terror followed, during which the Prince of Orange raised armies, which he led with consummate military genius; but they steadily melted away before the Duke's superior power, until heresy and patriotism seemed fatally crushed.

With unfaltering faith, however, the Prince of Orange pursued his resistance, steadily demanding the withdrawal of the Spaniards from the Netherlands, the free exercise of religion, and the restoration of the ancient rights and liberties of the land. By the Union of Delft, in 1576, he had federated Holland and Zeeland. In 1579, by the Union of Utrecht, Holland, Zeeland, Utrecht, Gelderland, Friesland, Overyssel, and Gronigen united to sustain the freedom of religion and renounce allegiance to the King of Spain.

These seven provinces, presided over by the Prince of Orange as elective Stadtholder, formed a confederation with a central legislative body called the States General; but so jealous of all central authority were the provinces that no laws or engagements could become effective without the sanction of a majority of the separate provincial assemblies. In 1650 the anti-monarchical sentiment was so strong that even the elective stadtholderate was abolished; to be restored, however, in 1672, and made hereditary in 1674.

Like Venice, the Dutch Republic became a maritime power of great importance, waged war on land and sea, and acquired by conquest valuable colonies.

FREEDOM HAS ALWAYS BEEN A DELICATE FLOWER TO KEEP ALIVE

All these republics, as we have seen, were primarily based upon the repudiation of autocratic power; but no permanent political organization can be sustained by a mere negation. At the basis of republicanism in every form is a conception of liberty united with a sense of social solidarity.

The positive element in the conception of a republic is the freedom of the individual, which rests upon the conviction that there are in the nature of man certain innate qualities that may justly claim the right of expression, and which, therefore, ought not to be suppressed by arbitrary power.

The chief problem for a republic has always been the organization of liberty in such a manner as to render it permanently secure. In this no one of the republics of antiquity had ever entirely succeeded. The Greek city-states—like Athens, Sparta, Thebes, and Argos—wavered between aristocratic and democratic control; but the existence of slavery and a subject class rendered all of them to some extent oligarchical.

The Roman city-republic was submerged by its own internal expansion of power and its external growth of responsibility, which created conditions that no democracy could satisfy or control. The later Italian city-states were either absorbed by more powerful neighbors or in their efforts at self-preservation from foreign intrusion degenerated into tyrannies, as the Greek republics often had before them.

Freedom has always proved a delicate flower to keep alive. Oligarchy has tended to narrow the depositories of power until it became the possession of a single master; while democracy, on the other hand, recognizing in emergencies the weakness of divided counsels, has tended to confide its power to the hands of a dictator.

REPUBLICS THAT HAVE FAILED

In no form of government is equilibrium so unstable as in a republic, which is essentially a balance of forces, any one of which, if exaggerated, is capable of consummating its destruction. In addition to this inherent internal instability, upon which the demagogue skilfully plays for the accomplishment of his selfish designs, a republic is always peculiarly exposed to the intrusion of foreign influences and to the peril of foreign attack.

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For this reason, republics have usually sought to find a safeguard in federation, through which alone the republics of the eighteenth century were able to survive. Those which failed to avail themselves of this principle have been short-lived.

It was owing to this failure on the part of the Greek republics that Macedonian supremacy was finally established over the whole of Greece. A different foreign policy on the part of Athens, which might have united the rest of the Greek cities for common defense, would, in the opinion of historians, have saved the Greek republics from extinction; but democracies have usually been short-sighted in matters of foreign policy.

For obvious reasons, republics have as a rule possessed but a limited territorial extent; but magnitude alone is not a source of strength. Before the first partition, in 1772, Poland covered a larger area of territory than Spain, or France, or all the States of Germany put together.

A turbulent nobility had completely throttled the elective monarchy. It was the triumph of an oligarchy of landed proprietors whose anarchy was balanced by no industrial and commercial middle class, and which failed to evolve a leader sufficiently powerful to impose unity of action upon the nation.

By the *liberum veto*, adopted in 1650, a single member of the Polish Diet could, from that time onward, nullify the resolutions of the entire assembly, thus paralyzing every policy for the conservation of the republic.

THE LOVE OF LIBERTY SPREADS IN FRANCE

Between 1776 and 1806 profound causes of change were introduced into the European system, some of them from within and others from without, which at first greatly promoted the development of republics and afterward nearly destroyed them altogether.

It is important to note that in 1776 there was no expectation that a revolution would occur in France such as, fifteen years later, was to shake the continent of Europe to its foundations and institute, for a time at least, a wholly new order of things. No contemporary could possibly have foreseen this process of political evolution, for the causes of it were not confined to Europe.

The accession of the young king, Louis XVI, to the throne of France, in 1772, had aroused the hope that the evils brought upon Europe by the age of absolutism were likely to be remedied by a better administration of public affairs.

In 1776 there was not the slightest sign of the general upheaval that came to Europe during the young monarch's reign. There had been, it is true, much radical speculation regarding the nature of government. Montesquieu, Voltaire, Diderot, Mably, and Rousseau had spoken out boldly for greater liberty. In fact, their work of iconoclasm was already finished, so far as mere discussion was concerned. Montesquieu's *Spirit of the Laws*, in which he extolled the English system of government as the most perfect guarantee of freedom that had ever been devised, had been published a whole generation earlier, in 1748. Young men who had read Rousseau's *Social Contract* in its first edition, in 1762, had passed into middle life.

OUR FIRST AND GREATEST AMERICAN INVENTION

Although the sovereignty of the people and the right of the majority to rule, advocated by Rousseau, were theoretically hostile to the "old régime," they had produced in 1776 no actual fruit. Not one of the philosophers of the enlightenment had propounded a concrete program of political reconstruction.

Such literature as theirs might have existed forever without producing a revolution; and, in 1789, when the earliest tokens of a real revolutionary movement in France were perceptible, no definite proposition had been offered by any of the philosophical writers that could be of practical utility in guiding the nation in its desire to abolish the abuses of power from which France was then suffering; yet a whole generation had come to manhood since Rousseau's eulogy of democracy had appeared.

But in the meantime something of great import had happened. In America thirteen British colonies had, in 1776, declared their independence and had repu-

Photograph by James F. Huges Co.

WASHINGTON MONUMENT AT MOUNT VERNON PLACE, BALTIMORE

This was the first monument ever reared to the memory of the Father of his Country—a country whose principles of justice and whose economic opportunities have drawn more people to its shores than ever journeyed to any other.

Photograph by W. H. Brandel

THE MONUMENT TO THE MEMORY OF WILLIAM MC KINLEY: BUFFALO

Under the leadership of this martyred President, the United States took up the gage of battle to secure the liberty of a struggling alien people. Cuba's appeal for release from the thraldom of oppressive monarchy was heard and the blood of our great Republic was shed that another free country might find its place in the family of nations.

diated the Crown and the Parliament. Thirteen little republics had been created and federated. They possessed written constitutions which Franklin had translated, distributed, and expounded in France. The French armies that had aided in the War for Independence had returned to France full of enthusiasm. The Constitution of the United States had just been adopted. Lafayette was demanding the convocation of the long-forgotten States General, in order that France also might have a constitution.

The innovation in government introduced by the United States of America, an invention as essentially American as the telegraph and the telephone, was to revolutionize the governments of the world as completely as the telegraph and the telephone have changed our methods of communication.

It is not necessary here to follow in detail the development of the French Revolution. The circumstances of the time demanded a change, and the speculations of the philosophers had justified it, but it was the American example that marked out a pathway to effective action.

THE REASONS FOR THE COLLAPSE OF THE FIRST FRENCH REPUBLIC

Unfortunately, however, it was not the guarantees of the American constitutions, but the unrestrained democracy advocated by Rousseau that took possession of the French mind. The Constitution of the United States, as finally adopted, unlike any other that had ever existed, while securing the rights of the citizens, placed limits on the powers of government. The French Constitution, on the contrary, simply transferred absolute power from one government to another. What was most original in the unique American invention was entirely overlooked.

The Revolution, which in its early stages promised to be a new organization of liberty, soon became a new form of despotism.

Then began the titanic struggle of absolute popular sovereignty with the established power of royal absolutism—the general war of French democracy upon all kings—which brought a young Corsican officer to the surface, and at last carried him, in the guise of an apostle and protagonist of liberty, to the imperial throne of France. Unbridled democracy demanded and found, first, a servant and then a master.

It is not difficult to comprehend how the conservative eighteenth century republics were swept off their feet by the flood-tide of a larger liberty. They were not entirely unwilling victims of conquest. Everywhere the doctrines of the Revolution preceded its armies and prepared the way for them. The Declaration of the Rights of Man and the Citizen announced the approach of a liberator. Even in the republics, the people had their grievances, which the new order of things that the French Directory proclaimed promised to abolish. Republics sprang up like mushrooms under the protection of the French armies.

As a result of the obstinacy and treason of Louis XVI, the French Republic had come into being on September 21, 1792. By the end of January, 1795, the United Provinces were in the possession of the French army, and the Batavian Republic was proclaimed on the model of the French Republic. In the meantime the Polish patriots, under the leadership of Kosciuszko, who had received a welcome in France, endeavored to restore the Polish Republic, but without success, and the final partition was arranged by Prussia, Austria, and Russia in 1795.

Bonaparte was sent to Italy as a conqueror, but his conquests were made in the name of liberty. Outwardly the obedient servant of the Directory, even then he meant to be in due time the master of France and of all that the Republic might acquire.

First of all, however, there was necessary the conquest of men's minds, which could only be made in the name of freedom; and freedom was, therefore, Bonaparte's constant watchword.

But his vision of his goal was from the first perfectly clear. Speaking to Miot, the French ambassador at Florence, he said in 1797 of the destinies of France: "What is needed is a chief illustrious by glory and not by theories of government—the mere phrases and discourses

of ideologues — of which the country understands nothing."

And, turning to Melzi, one of his Milanese adjutants, he continued: "As to your country, it has still less than France the elements of republicanism, and it is necessary to make less ado about it than with any other. We shall do what you wish, but the time has not arrived. We must yield to the fever of the moment. We shall arrange here for one or two republics in our own fashion."

THE CARDHOUSE OF REPUBLICS

"The fever of the moment" was the orders of the Directory, which had resolved to impose the French constitution on all the conquered States of Europe. Bonaparte understood the expediency of obedience, but, referring to himself as conquerer, he said to Miot: "I wish to quit Italy only to play in France a rôle similar to that I play here, but the moment is not yet come. The pear is not ripe!"

At Venice, where he was received with honor and his wife Josephine was loaded with ornaments, the consummate diplomacy which had in so many emergencies averted calamity failed to maintain the independence of the Republic. Austria coveted its maritime advantages, while France wanted a free hand at Milan and the Rhine frontier, which Austria could accord. Accordingly, by the treaty of Campo-Formio that bargain was made and the Venetian Republic was delivered into the hands of Austria.

The remainder of Italy was promptly republicanized, partly to its liking and partly against its will. In rapid succession, in 1797-1798, the territories of Milan and the Lombard plain, at first intended to be divided into two, were constituted into the Cisalpine Republic. Genoa and the neighboring coast were transformed into the Ligurian Republic. Rome and the States of the Church, from which the Pope was expelled, were erected into the Roman Republic. Finally, Naples and the other continental provinces of the Kingdom of the Two Sicilies were taken from King Ferdinand and became the Parthenopean Republic.

Even the Swiss Confederation did not escape from the hand of the conqueror. Most of the cantons were feudal and oligarchical. Catching from France the contagion of revolution, in 1798 the people of the Pays de Vaud rose in rebellion against the Canton of Berne. In other cantons insurrection broke out; appeal was made by the peasants for aid from France; Switzerland was invaded by a French army; a constituent assembly was summoned, and the Helvetian Republic was proclaimed with a constitution on the French model.

But the Swiss found it inconvenient to be reformed by strangers. The "Forest Cantons"—Schwyz, Uri, and Unterwalden—revolted, and in the end the French were as cordially detested as they had at first been cordially welcomed by the Swiss people, whose problem then was how to regain their independence.

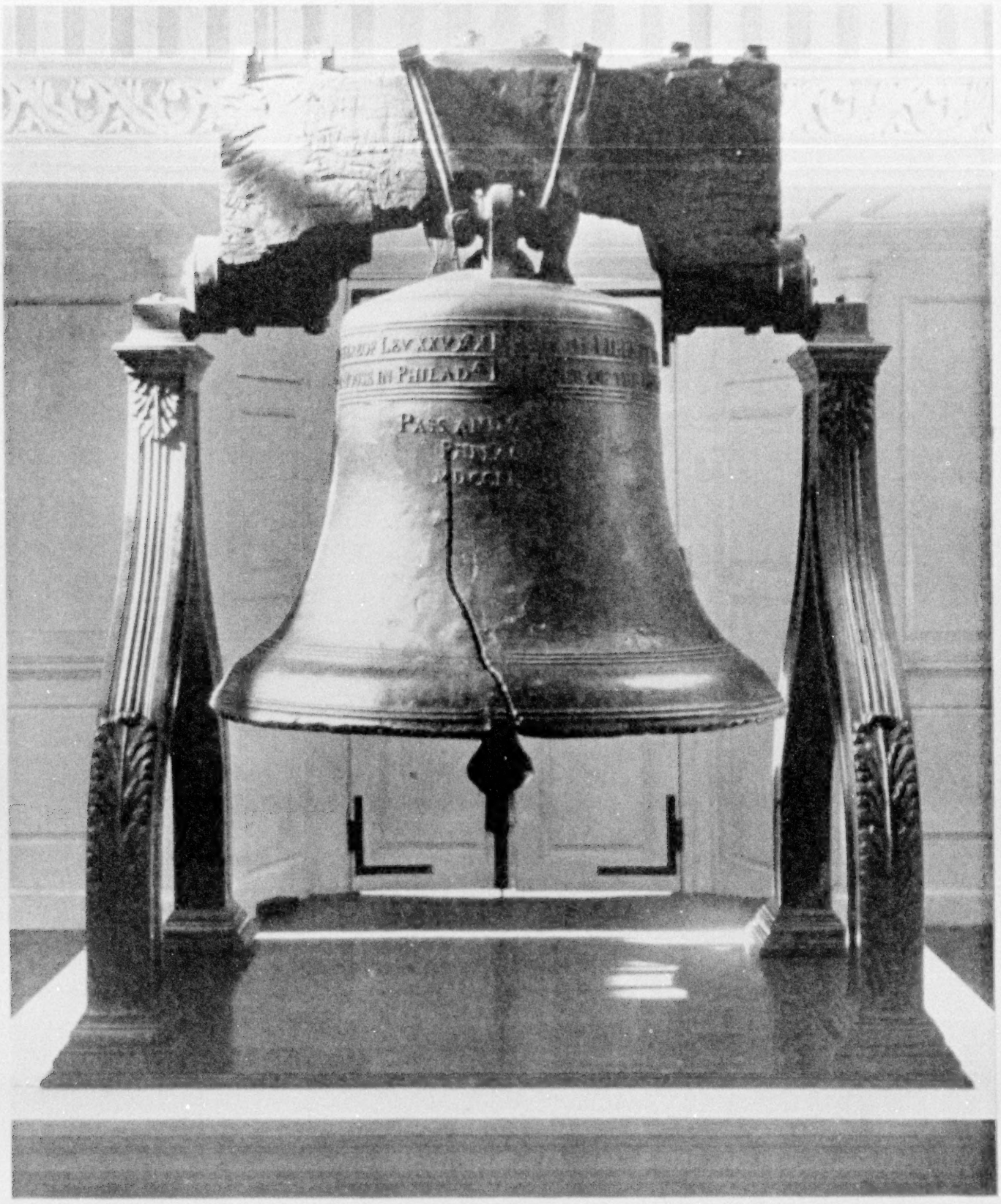
In 1804 this whole card-house of republics fell, and Napoleon I was proclaimed "Emperor of the French and King of Italy."

Then followed the grand distribution of crowns. Joseph Bonaparte was made King of Naples and afterward of Spain; Louis, King of Holland; Jerome, King of Westphalia; Murat, a brother-in-law, King of Naples after Joseph was sent to Spain; Prince Borghese, another brother-in-law, Duke of Guastalla; Eugene de Beauharnais, a stepson, Viceroy of Italy. More than thirty of Napoleon's marshals and generals were made princes or dukes.

In 1806 there was only one republic on the map of Europe—the Swiss Confederation!

THE INFLUENCE OF THE UNITED STATES INCALCULABLE

All the more wonderful, in view of these events, is the fact of the present vast extension of the republican form of government in every part of the world. What has brought it about? Undoubtedly the spread of democratic ideas throughout Europe during the Revolution of 1789 greatly promoted the constitutional movement between the Peace of Vienna and the Revolution of 1848, which made France a republic for the second time and caused great gains for constitutionalism everywhere.



Photograph by Rau Art Studios

THE LIBERTY BELL IN INDEPENDENCE HALL, PHILADELPHIA

Until Freedom's tocsin called to arms a people in defense of their unalienable rights to Life, Liberty, and the pursuit of Happiness, the "music of the spheres" was deemed a Pythagoran fancy. But the defiance to oppression which throbbed from the throat of Liberty Bell in 1776 will go ringing down the centuries as a pæan of praise from liberated mankind and an anthem of aspiration for those peoples still struggling toward the goal of self-government.

But it should not be overlooked that the continuous, unbroken development of the United States of America under a republican constitution has been an influence of incalculable consequence. The whole South and Central American development has found its inspiration in this influence, and a close study of the growth of the constitutional idea shows that there has been no instance of its adoption where this influence has not operated to some degree.

It has often resulted in a compromise, involving the retention of the monarchical

tradition under constitutional limitations; but its logical outcome is the practical abolition of royal authority, which has been almost everywhere displaced by the authority of the people. It has been the chief cause of the gradual triumph of democracy.

ALL THE PEOPLE UNLIKELY TO GO WRONG AT THE SAME TIME

The strength of republicanism lies in the fact that all the people are not likely to go wrong at the same time. A monarchy or an oligarchy is liable to that calamity. Men may, however, go wrong in a republic also, and even a majority may sometimes do so.

There is for that reason need of constitutional limitations in a democracy as well as in other forms of government. Liberty can be secured only by restrictions upon the power of government, no matter what its form may be. These restrictions consist in the division of public powers, in deliberation of procedure, and the application of general principles of justice to all particular cases.

Herein lies the chief value of a constitution, and it is the combination of these qualities that gives to the Constitution of the United States its unique excellence. It renders possible the free selection of the wisest legislators. This is representative government. It divides by law the powers of government. This defines and limits official authority. It declares certain rights to be beyond the power of government to take away. This furnishes guarantees for life, liberty, and property. Finally, it places private rights under the protection of the judiciary. This insures that the citizen shall not be divested of his rights without due process of law.

But the supreme merit of such a constitution, united with the principle of federation, is that it applies to a great area and a great population, as well as to a small one, to which democracy was always before supposed to be necessarily confined.

But there is, in fact, no limit as respects territory or population to which the republican system may not be extended, provided it retains its truly constitutional character as just described. It is as good for 48 States as for 13. It may be as good for China or for Russia as for the original American colonies.

But an absolute democracy, a democracy that sets no bounds to its own arbitrary will, a democracy that is based on impulse and appetite, and not on reason and justice, is for any community of men an illusion and a danger. Any nation that is capable in the full sense of realizing this truth is ripe for self-government. A nation that does not realize it, no matter how glorious its past, is falling into decay and will not long survive as a free and independent republic.

WAR, PATRIOTISM, AND THE FOOD SUPPLY

By Frederick V. Coville

Of the United States Department of Agriculture

A HUNDRED million Americans are searching heart and mind to determine in what way each can contribute most to the success of his country in the war. We are remote from the battle line, and few of us, relatively, can take part in the actual fighting. It is everywhere recognized that our financial and industrial cooperation with the Allies will have a far greater effect in hastening the conclusion of the war than would the equipment and sending of a great American army to Europe.

In the industries fundamental to the manufacture of munitions we are in a position to wield an immense influence. So widely is this appreciated that the proposal to exempt from direct military service the skilled workmen of the munition industries meets with general approval.

The people of the United States, however, have not yet come to appreciate fully that our most important duty in this war lies in still another direction, indicated also by our economic and geographic position. I refer to the maintenance of an adequate food supply for the British and the French.

The armies of France and the British Empire must be well nourished. The British and French industrial workers who supply those armies with munitions must be well nourished also. Within the last few weeks Argentina has declared an embargo on the export of wheat. More than ever before, therefore, is it incumbent on us to maintain a wide and constant stream of food supplies to France, Great Britain, and to Italy also. If we fail to do so——

But we shall not fail. Our duty is clear. The task is large. Understanding and organization will enable us to accomplish it. Understanding and organization are at work upon it. The United States Department of Agriculture, State agencies and county agencies, all are carrying the message to every farmer in the country.

OUR DEMANDS FOR FOOD ARE INCREASING MUCH MORE RAPIDLY THAN OUR PRODUCTION

There are limitations, however, to the amount of food that can be grown on American farms, and none of these limitations is more potent than the scarcity of farm labor. Even in normal times the supply of efficient agricultural labor is, in general, inadequate. More land is available than can be farmed effectively. The town outbids the farmer for his labor by higher wages, or shorter hours, or fancied superiority of recreation, or by all these combined.

In war times the attraction of agricultural labor away from the farm becomes greater than ever. Military service, munitions manufacture, and the other industries of war all tend to take their quota from the farm. The establishment of an ammunition factory near the city of Washington has combed the labor from the farms, either directly or by progressive replacement in other pursuits, for miles around. The suburbs of many other cities where munition plants exist are having similar experiences.

As long ago as 1898 it was contended by Sir William Crookes, and the contention was sustained by one of our foremost agricultural statisticians, that by the year 1931 the increasing population of America was likely to consume all the wheat we raised.

We are already more than half way on the road to that destination. Increased acreage and improved agricultural methods have, it is true, intervened to increase our crops; but our consumption of food has also increased enormously, and the difference between what we raise and what we eat is shrinking year by year.

PRODUCE SOME FOOD IF YOU POSSIBLY CAN

One does not question that the American farmer will do his duty, or that the wide-spread movement for city gardening will contribute somewhat to the extension of our food surplus; but there remains a large class of our population favorably situated for food production and well able to take part in it, whose contribution is only a small fraction of what it might be made. I refer to the man whose business ordinarily is in town, but whose residence in the country gives him access to an area of ground varying in size from a small garden to an ample farm, used, however, only in small part or not at all for gardening or farming purposes.

Usually such country dwellers have the equipment for gardening or for farming, but make only such limited use of it as suits their convenience or their demands for recreation.

The time is now at hand when every non-farmer who has unemployed farming or gardening land, and every summer resident in the country, can contribute patriotically to the welfare of his country and the progress of liberty by producing all the fruit and all the vegetables he consumes, and in some cases also the eggs and poultry that he needs. And I mean not merely the fruits and vegetables that he uses in summer, but those he will require in the following winter.

Our grandmothers knew how to preserve fruit for winter use by drying it

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and by canning it, but they did not know how to can vegetables. Modern science has found out how to do this, and now the girls in the department of domestic science in every agricultural college and every agricultural high school in the country are taught how to take vegetables at the time when their flavor is most delicious and their texture the most tender and put them up in glass jars for winter use.

Such preserved vegetables are far superior to those we ordinarily buy in tin cans, for they receive a care in selection and preparation that commercial canneries seldom give.

Every pound of food grown and used in this way is a contribution of just that amount to the great stream of supplies that we are passing on to the British and the French soldier at the front, for whatever each of us consumes he must take from that stream unless he produces it himself.

THE WORK IS NOT SO DIFFICULT AS OF OLD

In modern gardening the backache-breeding hoe and weeder of a generation ago have been replaced by those wonderful little implements set on wheels and pushed in front of one by two handles like a plow. The heavy plowing and planting of spring is still a man's task; but these little hand cultivators make the later care of a garden a happy outdoor task for women and half-grown children. It brings the bronzed cheek of summer and the elastic step and clear mind of the winter that follows.

The congestion of freight traffic during the last year was due primarily to the scarcity of ships for the oversea trade, the consequent filling up of warehouses at the seaboard, and the delay of loaded freight cars waiting their turn to deliver their freight. The congestion was greatly increased, however, through an agricultural practice that has been growing up in the United States for many years: the raising of a special crop in that particular part of the country in which it can be grown most economically or in the greatest perfection and its shipment very long distances by rail to the consumer.

In times like the present every ton of food that can be grown where it is consumed, or not far from its place of consumption, will relieve our railroads of just that much space needed for the urgent transportation demands of war.

IT WILL HELP THE BELGIANS

Because I suggest to the country dweller that in growing his own supplies he will be practising sounder economy and will have better food, better health, and the gladness of heart that comes from a patriotic act, let no one lose sight of the fact that the suggestion is made not primarily for those reasons, but for the sake of that gallant soldier who fights under the banner of "liberty, equality, fraternity," and that other soldier who carries grimly in his heart the message written in stone in Trafalgar Square: "No price can be too high when honor and freedom are at stake."

And the Belgians. What of them? When in schoolboy days we used to read the words, "*Horum omnium fortissimi sunt Belgae,*" we did not fully grasp their meaning; but after Liège and Namur, when Belgium stood broken and bleeding, but still fighting and unafraid, the spirit of the phrase burst upon us. "The bravest of all these are the Belgians," the very words that Julius Cæsar wrote two thousand years ago.

No service in this war appeals to America more than to carry food to the Belgians, in order to keep from hunger that little nation which, single-handed, defended the gateway of liberty.

But first we must furnish food to the British, the French, and the Italians. In doing so we shall have the added satisfaction of knowing that in spirit, if not indeed in physical fact, we are taking it also to the people of Belgium.

Let each of us do his share toward bearing bread to the Belgians.

Photograph and copyright by Austin A. Breed

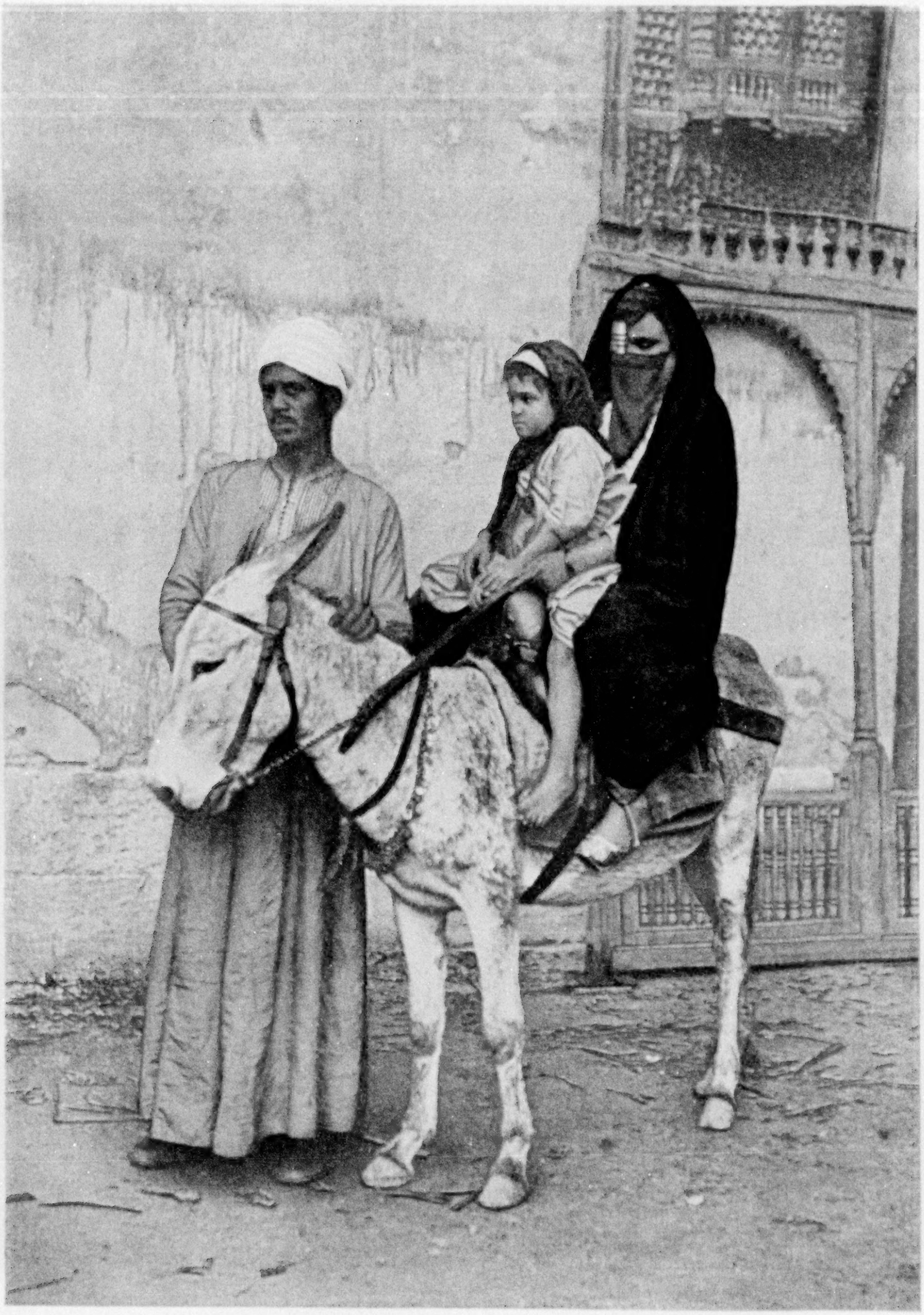
A SPANISH GYPSY

This beautiful girl of Granada represents the highest type of the aristocracy of gypsydom. She would lose caste at once if she were to work, but it is perfectly all right for her to beg or steal—your heart.

Photograph by John D. Whiting

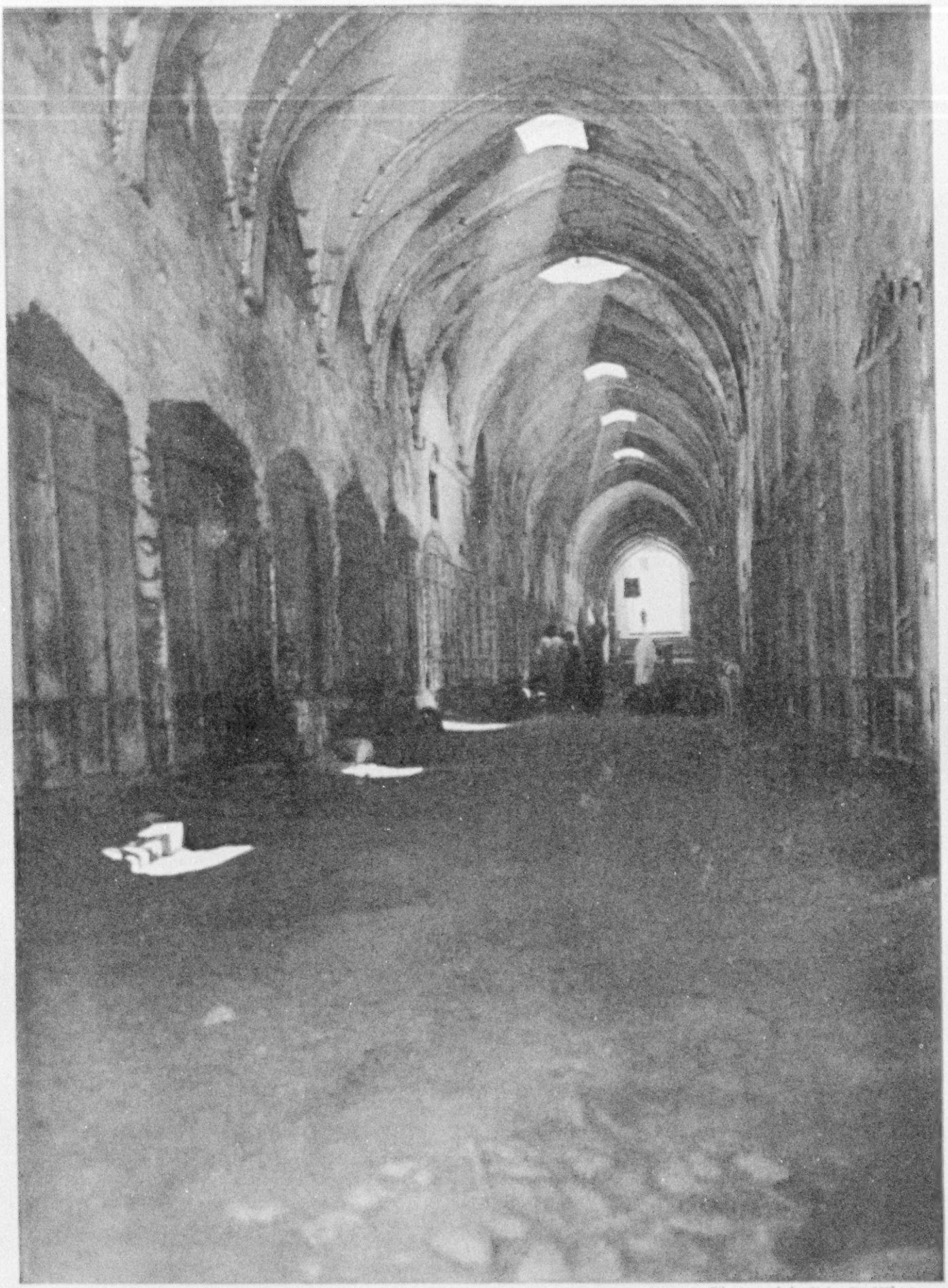
A GARDEN IN THE HOLY LAND

In days gone by, many of the city houses of the more prosperous residents of Jerusalem were built around an open court so that the Moslem women, although secluded, could have a garden, thus affording a measure of outdoor life. This is now the home of an American.



AN AUTOMOBILE OF THE ORIENT

The donkey is the patient burden-bearer of Northern Africa just as he is in many other parts of the world. He has carried heavy loads from time immemorial—both passengers and freight—and makes no protest until the accumulation of trouble swells his heart and he seeks relief through an impassioned bray.



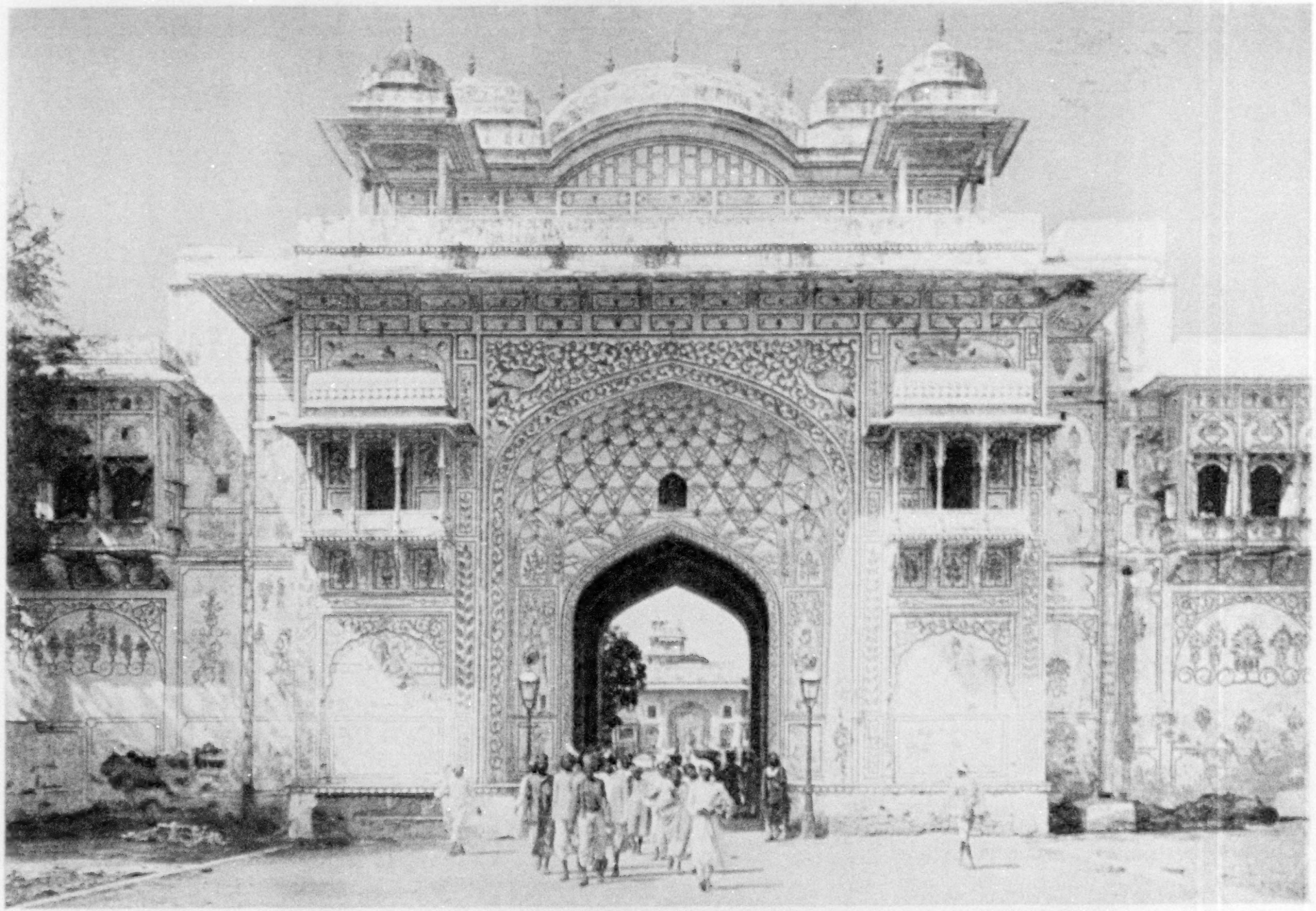
Photograph by John D. Whiting

THE ABANDONED COTTON MARKET, JERUSALEM

One of the entrances to the temple area within which stands the Mosque of Omar. There is a biblical atmosphere about this old passageway, the cobbles of which have been worn smooth by the weary feet of the ancients.

A DESERT FLOWER

"Somewhere in the Sahara" lived this child of the Desert until she came to Biskra, the "Garden of Allah," to earn her dowry as a dancer. One would imagine that she is dreaming of some turbaned knight left behind and counting the days until she may return to her natal tent.



THE GATE OF JAIPUR, INDIA

Built of pink stucco and surrounded by a great wall with many towers, this city is the chief financial center of the state of Rajputana and a commercial emporium of no mean proportions. Paved streets, some a hundred feet wide, divide the city into six equal sections. Founded in 1728 by the great Maharajah Jai Singh II, it was named for him, and its chief attraction is his magnificent palace in the center of the city. It is the only city in India laid out in rectangular blocks

A DAUGHTER OF ARABY

"Full many a flower is born to blush unseen,
And waste its sweetness on the desert air."

Photograph and copyright by Austin A. Breed

A MINSTREL OF THE ORIENT

This old beggar of Tangier, Morocco, is singing a monotonous, wailing chant to attract the attention of the passers-by. He is a cheerful soul, however, and a pleasant contrast to some of the members of his brotherhood who capitalize their deformities.

Photograph and copyright by Austin A. Breed

NIGHT IN TETUAN, MOROCCO

Even in daylight one is impressed with the mysterious atmosphere pervading the quiet streets in the old Moorish quarter of Tetuan. Here one is among a strange and alien people, widely different in religion and custom. The eerie quality of the streets is accentuated at night, and the soft radiance of the moonlight and even an occasional flickering lamp are welcome to the wayfarer

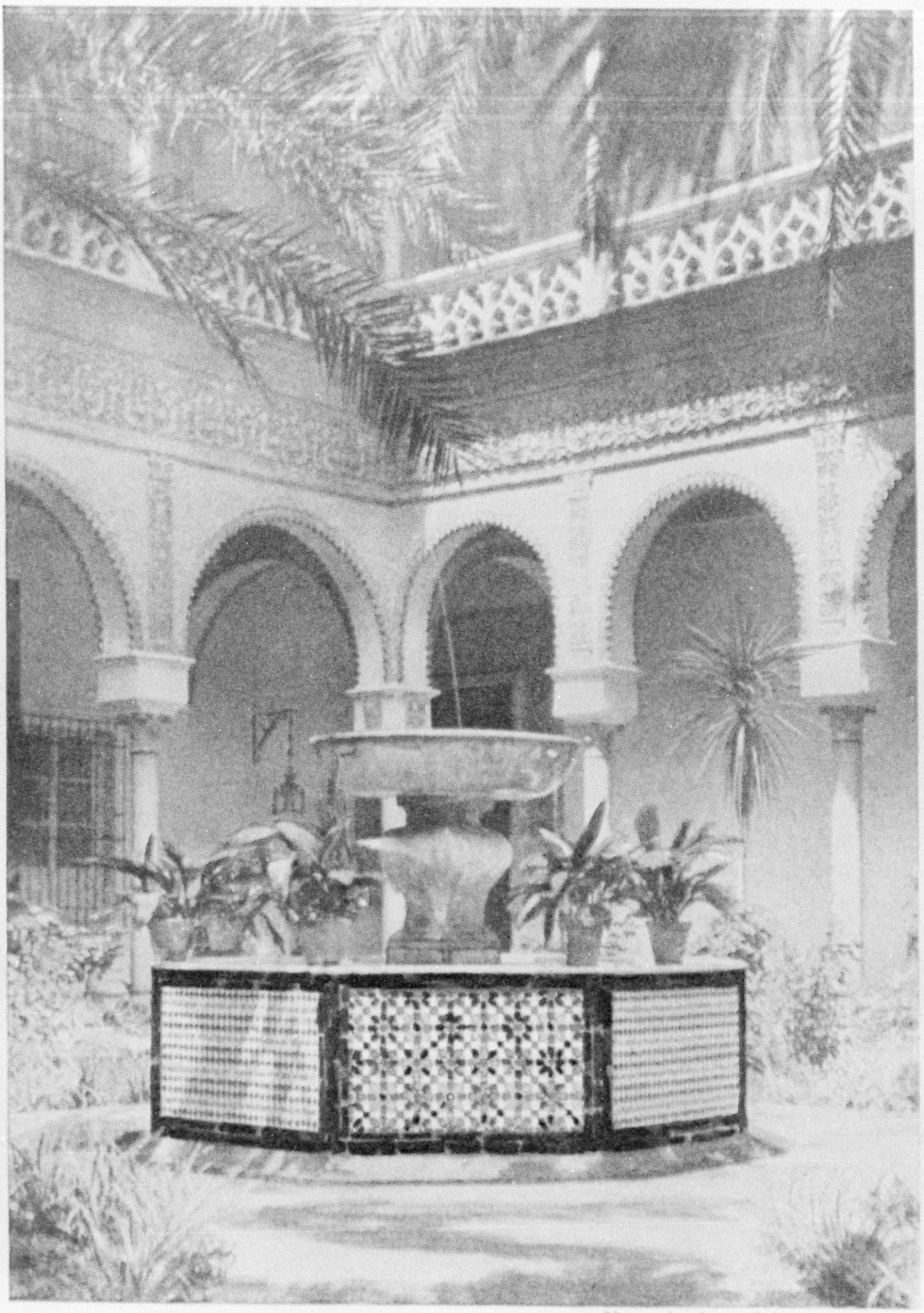
"AN ARAB SHOD WITH FIRE"

She is a dancer of Algeria and the slow, throbbing music of the Orient is just as necessary for her happiness as the jewels and coins with which she adorns herself.

Photograph and copyright by Austin A. Breed

SPANISH GYPSY GIRLS

Picturesque in their rags, the girls and women "tell fortunes," and to those who refuse to have their fortune told is flung this quaint curse: "May you be made to carry the mail and have sore feet."



Photograph and copyright by Austin A. Breed

THE PATIO IN THE HOUSE OF THE DUKE OF ALBA, SEVILLE, SPAIN

A fitting companion of the beautiful Alcazar, Seville's rival of Granada's splendid Alhambra in beauty and in historical renown, is the magnificent palace of the Dukes of Alba. Dating from the fifteenth century, this palace, in its architecture, combines the soft lines of Moorish ideals and the sharp ones of Gothic conceptions, and is a fine example of the blending of the two.

A DANCER OF THE CAFÉS, ALGERIA

Their faces clouded with a dark paint to increase the natural effect of the desert sun on their skin, their nails darkened with henna, and their cheeks faintly tattooed in blue to show their caste, these beauties of the Ouled Naïl tribe furnish much local color in the crowded cafés of Northern Africa. Their costumes are gorgeous and their heavy ornaments are largely of gold and silver coins.

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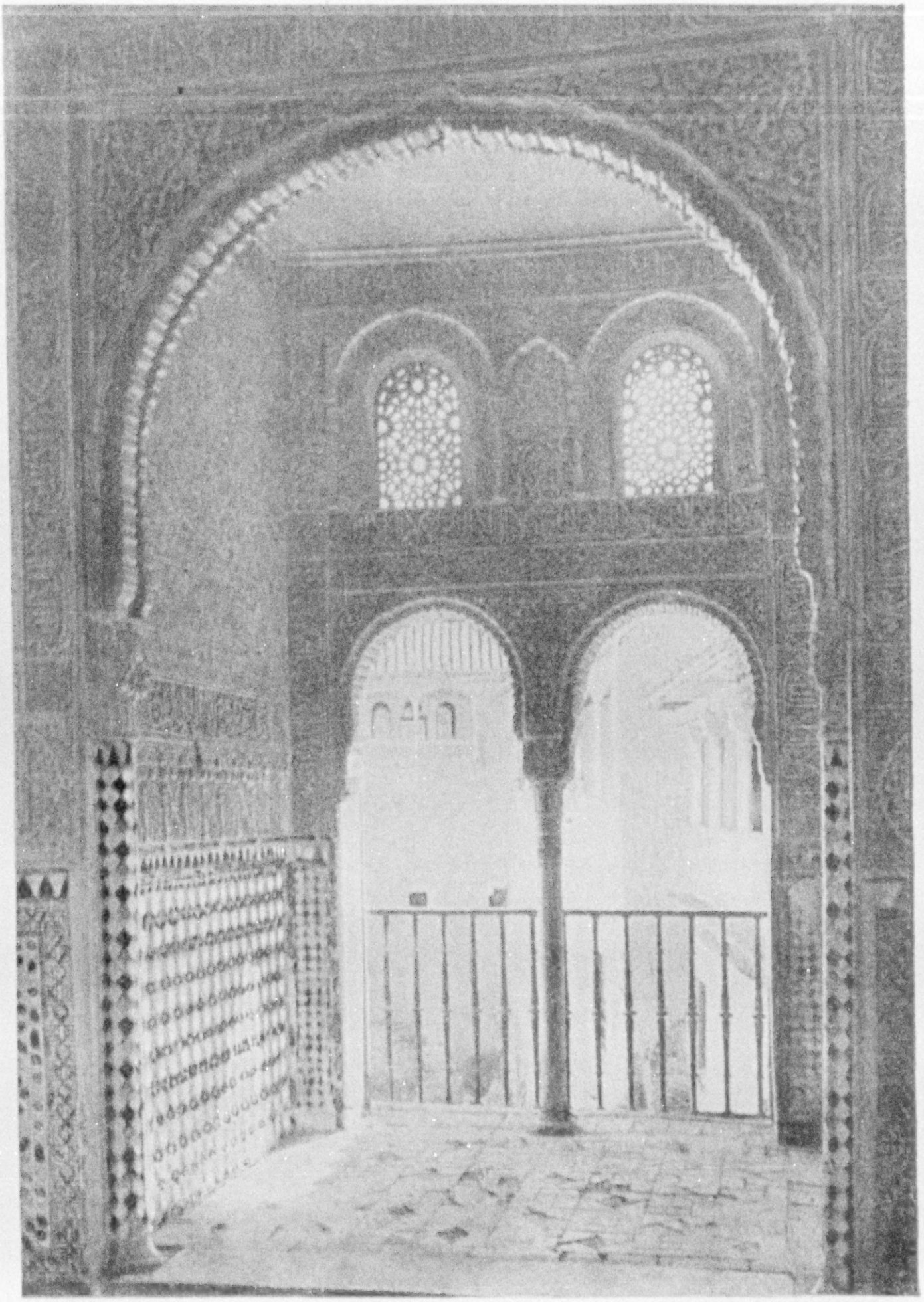
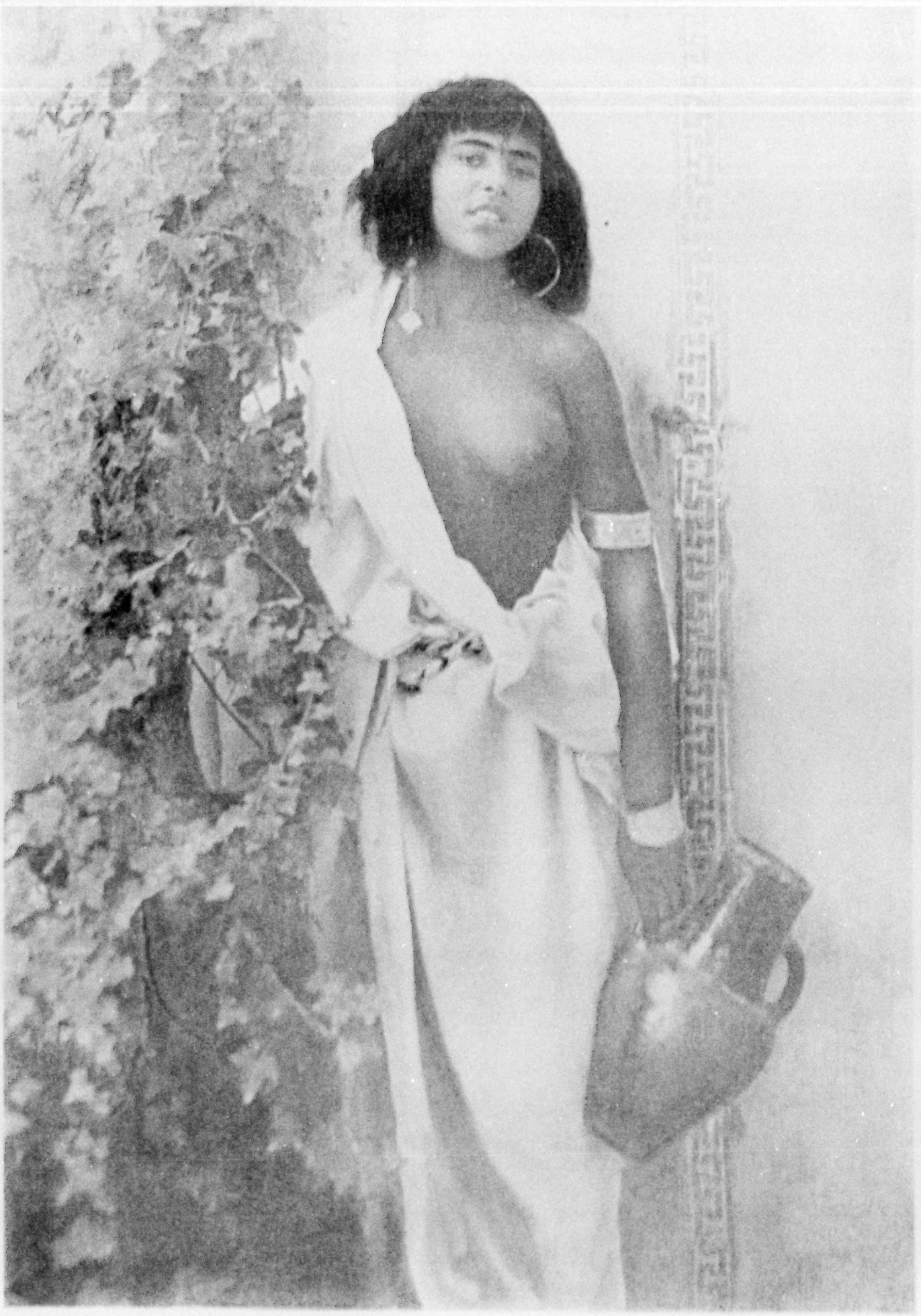


Photograph and copyright by Austin A. Breed

FROM THE THRONE ROOM OF THE MOORS

One of the embrasures, or window alcoves, of the Hall of the Ambassadors in the Alhambra at Granada, Spain. In this room met the last assembly of the Moors, summoned by Boabdil to consider the surrender of Granada to the Spanish King Ferdinand just before Columbus discovered America. The visitor is impressed with the fact that the depiction of living things is avoided in Moorish architecture and that the decoration is accomplished with geometrical designs which are astonishingly beautiful.



A BEDOUIN BEAUTY

"Around her shone
The nameless charms unmarked by her alone,
The light of love, the purity of grace."—*Byron.*

Photograph by Earle Harrison

THE LURE OF MOTHER EGYPT

In addition to the romance and mystery of Egypt's mighty past, expressed on every hand by her crumbling monuments and age-old customs, there is the elusive charm of the East and the soft coloring in pastel shades at eventide which give to the Occidental visitor a never-to-be-forgotten impression of the Land of the Nile

SOLDIERS OF THE SOIL

Our Food Crops Must Be Greatly Increased

By David F. Houston

United States Secretary of Agriculture

THE importance to the nation of a generously adequate food supply for the coming year cannot be overemphasized, in view of the economic problems which may arise as a result of the entrance of the United States into the war. Every effort should be made to produce more crops than are needed for our own use.

Many millions of people across the seas, as well as our own people, must rely in large part upon the products of our fields and ranges. This situation will continue to exist even though hostilities should end unexpectedly soon, since European production cannot be restored immediately to its normal basis.

It is obvious that the greatest and most important service that is required of our agriculture under existing conditions is an enlarged production of the staple food crops. Because of the shortage of such crops practically throughout the world, there is no risk in the near future of excessive production such as sometimes has resulted in unremunerative prices to producers. This is particularly true of the cereals and of peas, beans, cow-peas, soybeans, and buckwheat.

THERE IS NO DANGER OF OVERPRODUCTION

In view of the world scarcity of food, there is hardly a possibility that the production of these crops by the farmers of the United States can be too great this year, and there is abundant reason to expect generous price returns for all available surplus.

The most effective step that may be taken to increase the production of these crops is to enlarge the acreage devoted to them in the regions where they are grown habitually. This expansion of acreage should be to the limit permitted by available good seed, labor, and equipment.

The placing of too great emphasis on production in new regions is inadvisable, since the introduction into a farm operation of a crop not usually grown frequently involves practical difficulties not easily foreseen nor quickly surmountable.

Taking the winter-wheat territory as a whole, winter killing has occurred to an extent very much greater than usual. This, obviously, if not compensated for in some way, will mean a material reduction in the supplies of our most important bread cereal. Where winter wheat has been damaged sufficiently to justify the abandonment of fields, it should by all means be replaced by spring-planted food crops, preferably small grains or corn.

The condition of our winter wheat, as shown by the Department in its report of April 7, is more than 25 per cent below the average "condition April 1" for the past ten years. This condition forecasts a production this year nearly 243,000,000 bushels less than the crop of 1915 and 52,000,000 bushels less than that of 1916, when our harvest of winter wheat was also poor.

What this loss means will be appreciated from the statement that one bushel of wheat contains sufficient energy to support the average working man for 15 days. By producing 240,000,000 bushels of winter wheat less in 1915 we have lost enough flour energy to support 10,000,000 people for one year. But as no man lives on bread alone, this shortage represents wheat sufficient for the needs of 20,000,000 men for a year.

THE USEFULNESS OF OATS AND BARLEY

If land intended for spring wheat cannot be put into good condition early enough for seeding, oats or barley can be substituted to good advantage in the sec-

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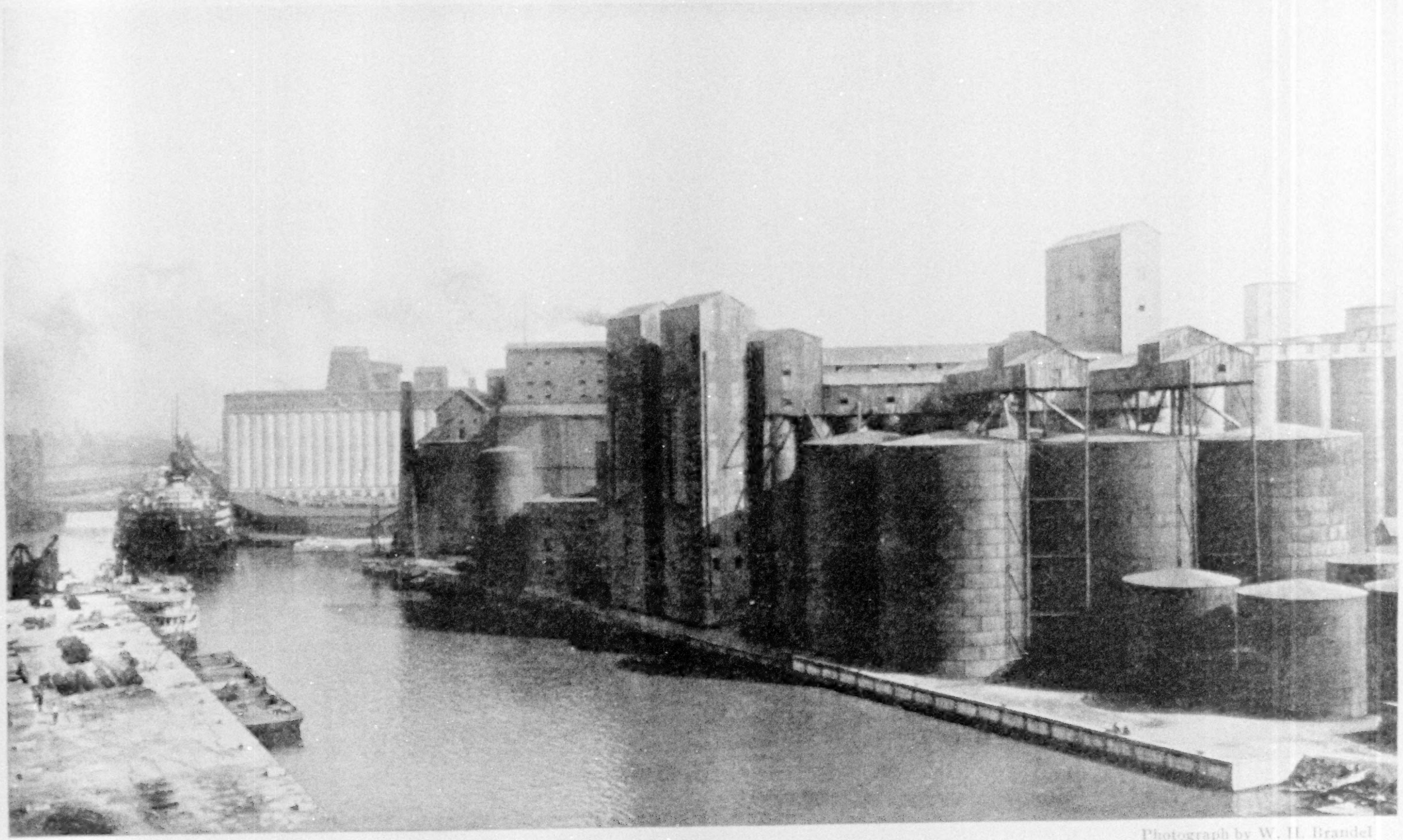

Photograph by W. H. Brandel

A GROUP OF GRAIN ELEVATORS IN BUFFALO

Owing to the failure of Argentina's wheat crop this year and the continued interruption of Russia's export of her harvests, the world is now largely dependent on us for bread

tions where these crops are known to do well. Barley can be relied on in the proved areas of Wisconsin, Minnesota, Iowa, the Dakotas, and Montana, while oats have a much wider range.

The ease with which barley may be substituted directly for wheat in human food and its usefulness to replace wheat milling by-products as feed in the production of the milk supply render its abundant production important. *Barley, where it succeeds, yields a larger weight of feed per acre than any other small grain crop.*

With an abundance of oats and barley available, much closer milling of wheat than at present could be practiced, if necessary, without endangering the milk supply, which constitutes so important an element in the dietary of consumers.

The place of rye under present conditions is an important one. The crop this year should be harvested and utilized with more than the usual care. Considerable acreage is planted in some sections for plowing under in the spring for green manure. Where conditions are suitable, part of this acreage might well be held for harvesting, and followed with a suitable summer or fall crop for plowing in later.

Buckwheat may be planted later than any similar crop, and often does well on old meadows or waste land that can be broken after the more exacting crops are planted.

In some sections, where experience has demonstrated that the cereals, except rye, cannot be relied on, buckwheat is a crop of considerable importance. The acreage could well be increased, especially in portions of New York, Pennsylvania, and New England, where the crop now is grown to a considerable extent.

Rice at present prices provides more food value for the money than most of the other cereals. Fuller appreciation of its value should stimulate production quickly in Louisiana, Texas, Arkansas, and California to an extent that would increase the total food supply greatly.

EXPAND THE CORN ACREAGE

Corn is the leading food and feed crop of the United States in geographic range of production, acreage, and quantity of product. The vital importance of a large acreage of this crop, properly cared for, therefore, is obvious. Because of the prices obtained for the last crop and the world demand for this grain, its profitableness to the American farmer during the approaching season is clear. The 105,954,000 acres planted to corn in 1916 yielded 2,583,000,000 bushels, or more than 400,000,000 bushels less than the large crop of 1915, and considerably less than the five-year average—2,732,457,000 bushels.

Conditions now warrant the planting of the largest acreage of this crop which it is possible to handle effectively.

Although fall is the proper time for breaking sod for corn, there are many unproductive and foul meadows and indifferent pastures in Illinois, Indiana, Ohio, and the Middle Atlantic and Northeastern States that, under existing conditions, can be broken and planted now to advantage. The resulting reduction of hay and pasture would be more than replaced by the corn stover, ensilage, and grain produced.

Earliness of maturity, other factors being equal, is advantageous in the case of practically all grain crops. Relatively early maturing varieties should be selected where possible, and the planting should be done at the earliest suitable date. With the small grains an advance of three or four days in stage of maturity frequently saves a crop from serious damage by rusts. With corn a similar advantage is obtained by early maturity, when severe droughts are encountered and when killing frosts occur toward the end of the season.

COW-PEAS AND SOY-BEANS VALUABLE FOR FOOD

The usefulness of cow-peas and soy-beans as human food has been recognized only recently in this country. Existing conditions warrant the planting of all the available seed of varieties known to do well in the several sections. The soy-bean, in particular, has proved sufficiently resistant to cold in spring and to adverse weather during summer to warrant heavy

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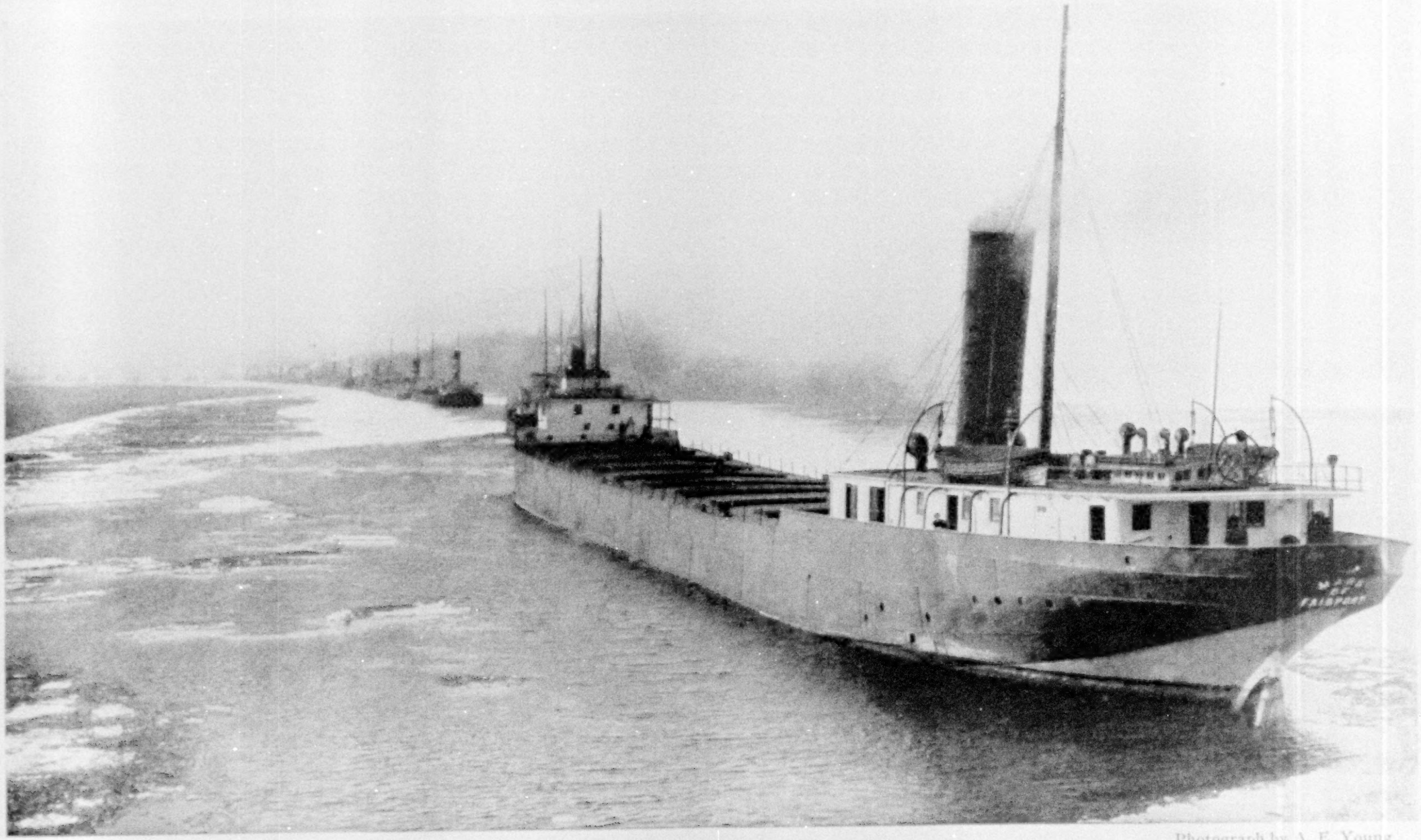

Photograph by A. E. Young

FOLLOWING THE LEADER: OPENING OF NAVIGATION THROUGH THE ICE, ST. MARY'S RIVER

Upon this watercourse, 40 miles in length, and the canals which parallel it is borne the vast volume of freight from the territory skirting Lake Superior. More than 20,000 vessels pass through these canals every year, bearing from Minnesota, Wisconsin, northern Michigan, and Ontario a world's food supply of grain and ore for armor plate and munitions to the various manufacturing cities on our Great Lakes, and thence to the Atlantic seaboard. The canals are notable for the fact that they carry the largest amount of water-borne traffic of all artificial waterways in the world. When the spring thaw begins the huge carriers take their southeasterly course in what seems an endless chain of commerce, each vessel a gigantic link of steel.

planting, especially throughout the South. The value of the beans for oil production, as well as for human food, has become recognized so quickly and so generally during the past year that the crop has acquired a commercial standing far in excess of its previous status.

The high food value of field beans and the shortage of supply due to the light yields of 1915 and 1916 render them of great importance in the regions to which they are adapted. This is especially the case in portions of the New England States, New York, Michigan, and California, where the chief supply has been grown for many years, and in sections of Idaho, Colorado, New Mexico, and other Western States where beans have attained importance recently.

The seed supply, while high in price, is well distributed.

RESERVE SUFFICIENT HAY, FORAGE, AND PASTURE LAND

A deficiency of hay and forage for the next winter would jeopardize the future meat and dairy supplies of the country and result in a shortage of roughage for military draft and saddle animals.

In regions where dairying dominates, the full acreage of clover, alfalfa, and the grasses that is in productive condition should be maintained. Under the conditions prevailing in most dairying sections, these crops can be carried with less man-power than that required for tilled crops.

The older, thinner, and less productive grass lands, however, frequently can be made to produce much larger yields of feed in corn than if left, as they are, in unproductive grass. The seeding down of small grain fields for next year's mowing should by no means be neglected, for the maintenance of effective rotations of crops will be found as important in the future as in the past.

For the Gulf States, perhaps no forage crop of which the available seed supply is relatively abundant exceeds the velvet bean in potential value. This legume possesses also the ability to make a crop when planted relatively late.

Seed potatoes should be conserved by planting on the best lands available for them and planning for thorough tillage and protection of the crop against disease and insect pests.

POTATOES AND VEGETABLES

Potatoes can be grown most advantageously near the centers of population in the Northern States, where transportation cost may be reduced to a minimum. This crop is capable of quick and large increase of production when conditions are favorable.

There is, however, considerable risk of unprofitable production of potatoes when they are grown at long distances from the consuming markets, owing to their disproportionate weight and bulk in comparison with the cereals.

Such vegetable crops as carrots, rutabaga turnips, onions, and cabbage are worthy of much more attention than they generally receive, especially in the eastern United States. All these crops are capable of large production on suitable land, under intensive culture, throughout the more densely populated portions of the country. The supply of seed is ample and their culture comparatively simple.

The holding of these vegetables for the winter food supply is relatively easy where suitable, inexpensive pits, cellars, or lofts are prepared in time.

THE OLD PRACTICE OF DRYING VEGETABLES IS REVIVED

The practicability of quickly drying vegetables for longer preservation was demonstrated on a large scale last year in western New York, where quantities were dried in the available apple evaporators and in rapidly constructed dry-kilns, for export as army supplies.

This was a repetition of the experience of the Civil War period, when desiccated vegetables assumed considerable importance in the army ration, and the equipment required for their preparation proved the forerunner of our present fruit-drying equipment. Existing conditions warrant heavier planting than usual of staple winter vegetables in the sections where canneries and fruit evaporators exist, and probably in some sections

Photograph from Paul Thompson

A DEMONSTRATION OF BELGIAN APPRECIATION

Having destroyed practically all of innocent Belgium except that tragic nation's indomitable spirit, imperial Germany struck yet another blow at this fallen victim when she forced hostilities upon the United States, for America's Commission for Relief in Belgium fed the starving, succored the wounded, and comforted the dying from the early days of the struggle until a few weeks ago, when forced to leave this grateful people to the tender mercy of their enemies, whose action in sinking at sea a number of ships loaded with food and clothing is significant of what may now be expected.

where the provision of such facilities later in the season may be justified.

In the southern half of the country perhaps no crop has larger possibilities for quick increase of production of food for both men and animals than the sweet potato. Methods of handling and storing this product, demonstrated and advocated by the Department workers for several years, make possible much fuller utilization of it than has occurred generally in the past.

The peanut, in many sections of the South, also is capable of greatly enlarged production, with little risk of oversupply, as it is in demand for oil and peanut-butter manufacture, as well as for direct use as food, both for man and hogs.

INCREASE FARM PRODUCTION OF VEGETABLES AND POULTRY

The high prices for foodstuffs that have prevailed during the last few months have stimulated interest in the increase of home supplies of vegetables, poultry, and dairy products on farms.

This interest has been quickened most noticeably in the South, where for several years this Department and the States, through their extension workers, have urged such an increase as necessary for economic reasons, even under normal conditions. Other parts of the country have responded to these appeals, but emphasis on this feature should be continued by all agencies in position to operate effectively.

Through increased attention to poultry on farms, it is possible to add quickly and materially to the food supply. Because of the importance of an increased supply of eggs, under present exigencies, farmers should not market hens of the egg breeds, such as the leghorns, which are less than three years old, or of the larger breeds which are less than two years old.

By the immediate preservation of eggs for home consumption through the use of water glass or lime water, larger supplies of fresh eggs may be made available for marketing later in the season, when production is less and prices higher.

Every person who raises chickens, from the novice to the poultry husbandman, should see that infertile eggs are produced and all surplus marketed promptly, so as to eliminate waste through spoilage.

When conditions render it feasible, small flocks of poultry should be kept by families in villages, towns, and especially in the suburbs of large cities. The need for this extension of poultry-raising is particularly great where consumption exceeds production, as in the Northeastern States.

Through utilization of table waste, scraps, and other refuse as poultry feed, much wholesome food in the form of eggs and poultry for home use may be produced at relatively low cost.

Many families in the villages and on the outskirts of cities also should consider the advisability of keeping a pig, if sanitary regulations permit. In most cases, however, it will be profitable to keep a pig only when a sufficient surplus from the household and the garden is available to furnish a considerable portion of the pig's food.

Consumers living in villages and in the suburbs of cities do not appreciate sufficiently the possibility of adding materially to their food supply by utilizing suitable idle soil in yards, vacant lots, and unused outlying fields. The total contribution to the food supply of families and communities which can be brought about through such activities is great.

Gardening is peculiarly an activity in which the family and the community may share with resultant mutual helpfulness and benefit.

The duty of the individual farmer, at this time, is to increase his production, particularly of food crops. If he has control of tillable land not in use, or money lying idle, or labor unemployed, he should extend his operations so as to employ those resources to the fullest extent.

This does not mean that he should rob his land, waste his capital, or expend his labor fruitlessly, but that by wise planning and earnest effort he should turn out a greater quantity of food crops than ever before. He will not lose by it, and he will perform an important service in supporting his country in the task that lies before it.

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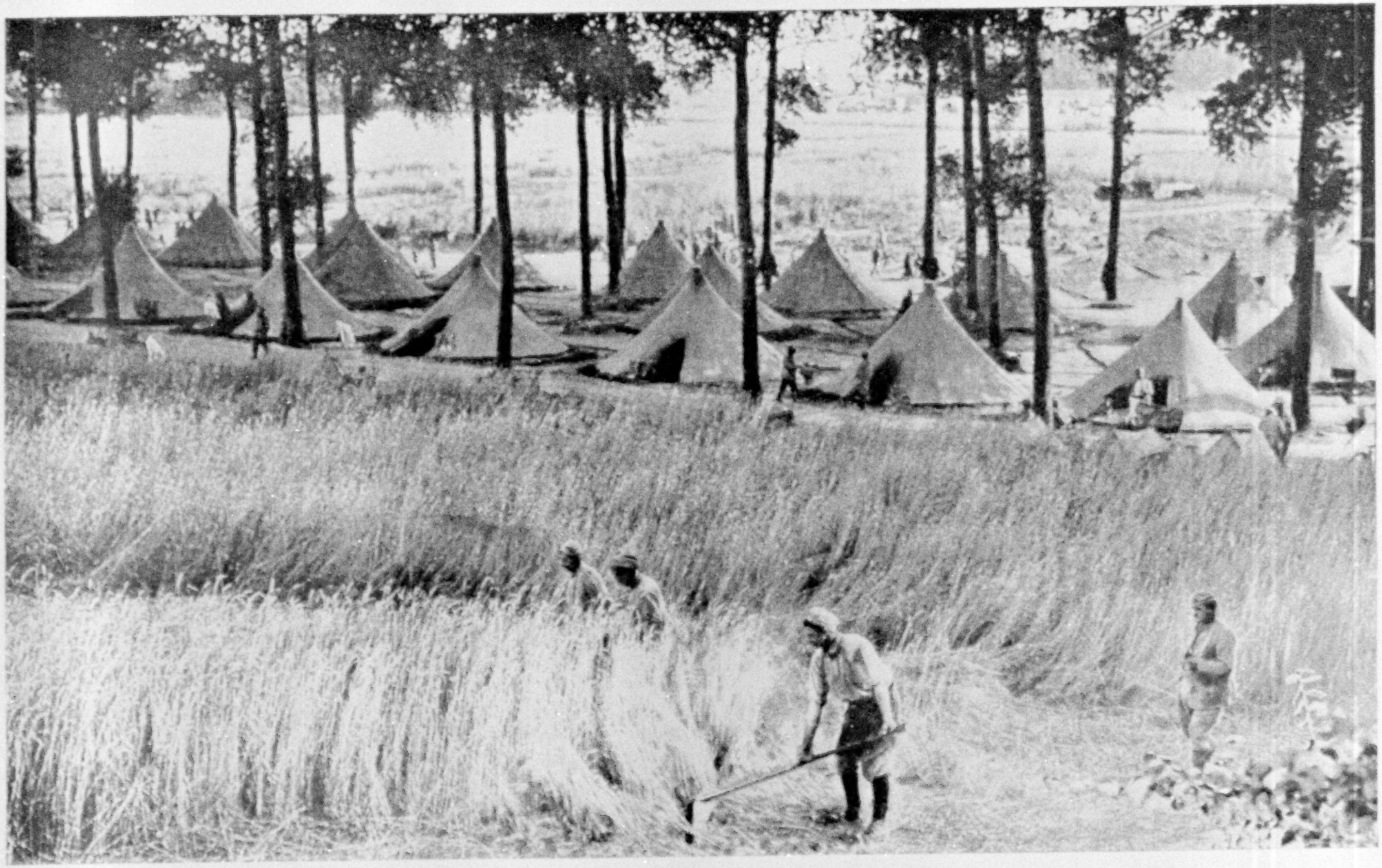

FRENCH SOLDIERS HARVESTING IN THE DEPARTMENT OF THE MARNE

When the day's or the week's or the fortnight's work in the trenches is done, the indefatigable "poilu" finds recreation in laying aside his rifle and bayonet for rake and sickle, making grain to the music of the enemy's shrapnel and shell.

THE TIES THAT BIND

Our Natural Sympathy with English Traditions, the French Republic, and the Russian Outburst for Liberty*

By Senator John Sharp Williams

I JOIN the President in having no hostility to the German people. I spent two and a half years of my life with them and I love them—a whole lot of them. The man who inhabits the borders of the Rhine, the man who inhabits Bavaria and Wurttemberg—easily moved to tears, and easily moved to laughter, and easily moved to rage—is a man whom I have learned to love; and I have always believed that this war in Europe, brought on by the obstinate refusal of the Kaiser to leave either to a tribunal of arbitration or to a concert of Europe the question at issue between Austria and Serbia, and inspiring Austria to refusal, is a proof of the truth of the adage, "Whom the gods would destroy, they first make mad."

I am a little tired, Mr. President, of utterances like that of the Senator in denouncing the Entente powers. Who are the Entente powers? France, "La Belle France," "Sunny France," sweet France—the most companionable people on the surface of the earth; the country of Lafayette and Rochambeau and De Grasse; the country of Victor Hugo and Molière and Racine; the country of the men who imitated our American example when they flung to the breeze banners with "Liberty, equality, fraternity" inscribed upon them, although they carried the banner to a bloody end that was not justified—to a Reign of Terror against those whom they deemed traitors at home—which has been exceeded by the German Reign of Terror in Belgium, greater in atrocity and less provoked.

Then the gentleman undertakes to "twist the British lion's tail." We have had a whole lot of demagogues who habitually do that. It started soon after the Revolution, but not with those of us whose forefathers fought under George Washington in the Continental line to establish American independence.

The War of Independence was really carried on against the will of the English people by the German king, who happened to be then the King of Great Britain, with hired Hessians, who were also Germans, against the leadership of that greatest Englishman that America ever produced—George Washington.

Edmund Burke, the elder Pitt, who was then Lord Chatham, and Charles James Fox came much nearer representing real English sentiment than the Hanoverian King George III.

OUR DEBT TO ENGLAND

I have a hearty contempt for the man who does not know his environment and his kindred and his friends and his country. It may be narrow, but I love my plantation better than any other plantation, my county better than any other county, my State better than any other State in the Union, and my country better than any other country in the world, and my race—the English-speaking race—better than any other race.

Whence do we get our laws? Whence do we get our literature? Whence do we get our ethical philosophy? Whence do we get our general ideas of religion? From the people who sired our fathers before they came here.

I am tired of men telling me—Welshman, Scotchman, Englishman in blood, as I am—that "the hereditary enemy of the United States is England" or Wales or Scotland—that it is Great Britain. Magna Charta, the Declaration of Rights, the Bill of Rights included in the Constitution in its first ten amendments—the very principles embodied in the Constitu-

*An address to the U. S. Senate April 4, 1917, specially revised by Senator Williams for the National Geographic Magazine.

MESSENGERS OF THE AIR: THE FRENCH ARMY AUTO AT THE FRONT FOR CARRIER-PIGEONS

tion derived from colonial experience under English rule—all come from Britain, a country whose high priest was John Milton, whose sweet singer was Burns, whose great intellect was Shakespeare, whose great warriors for liberty were Hampden and Sidney and Simon de Montfort.

I would rather have heard the Senator eulogize the best offshoots of that branch, and those offshoots right here in Canada and Australia and in South Africa, than to have heard his eulogy of Prussia. They are the branches of the old stock that had the courage to leave their neighborhood and environment and seek out a new habitat and adapt themselves to it, and who won the American fight for liberty and equal opportunity—who, like our ancestors, plowed the field with the rifle on their shoulder, while they held the plow with the other hand. They were English and Scotch and Welsh and Irish.

GEORGE WASHINGTON WAS ENGLISH

It was an Englishman of the Englishmen, as far as his blood is concerned—George Washington, of Mount Vernon—who would have preferred to have the people speak of him as "George Washington of Mount Vernon," his plantation name, rather than by some other name—who led the American forces that fought against the dictates of a German-blooded king, backed up by Hessian hirelings. George Washington warned against entangling alliances and warned against another thing—an infuriate and insensate hatred of some particular people—because a man with that poison in his blood is incapable of being a real, good American citizen in a country where the melting pot will finally operate.

I do not like the arraignment which the Senator made of the English people or the English Government, even more democratic than our own. I do not like it because it was not correct historically, because it was not true in sentiment, and because it was an insult to the gentlemen from whose loins I sprang, when they themselves fought against people of like blood who wanted to oppress them. What did they fight for? They fought for this—Thomas Jefferson and old Samuel Adams were pretty nearly the only ones of them who then had a larger vision—George Washington and Lincoln and

THE AUTOMOBILE SEARCHLIGHTS WHICH ARE MOST EFFECTIVE IN SEARCHING OUT THE ENEMY'S ZEPPELINS, THUS AIDING IN BRINGING THEM DOWN

Greene and the balance of them fought for "the inherited rights of Englishmen, belonging," as they contended, "to Englishmen in America as well as to Englishmen in England." Those "inherited rights of Englishmen" were expressed in the Constitution of the United States.

Thomas Jefferson and Samuel Adams had a bit broader vision and view; they went a bit farther; and Thomas Jefferson's vision went into the Declaration of Independence, which includes not only the rights of Englishmen, but "the rights of man," which were later embodied in the Declaration of the French Republic.

OUR DISLIKE OF ARROGANCE

Somebody said to me the other day, "You seem to be angry and in a passion about this German question," and I said, "I am." Next to the indignation of God is the righteous indignation of a true man with a soul in him and red blood, instead of bluish milk, in his veins, against the German assumption of German superiority and arrogance and injury and insult; but, above all, insult.

I know it will sound to a lot of you curious, but the thing I believe that I resent most is what Germany said to us about painting our ships like the display window of a barber shop, when we could go, by her allowance, once a week into one port in one country, more than I do even the sinking of our ships and the drowning of our citizens. I think nearly every gentleman resents insult more than he resents injury. A man who comes upon my place and goes through a pathway that is not a public highway, or who incidentally destroys some property that is growing, I can forgive; but one who comes up to me and tells me that he is going to do it whenever he pleases, because he is stronger than I am, is a man whom I cannot forgive.

Germany thought she was stronger than we; and she is right just now. These ready nations assume a great deal in connection with the unready nations. We two branches of the English-speaking race—across the sea and here—have always been unready for war, thank God, and shall remain so, because we think it

XUM

Photograph from Jane Watts Fisher

AMERICAN INGENUITY: FIRST IN THE AIR, FIRST IN THE WATER

The inventive genius of America is reflected in this illustration, which shows three types of American-born craft at Miami, Florida—an airplane, or military tractor, and two flying boats, together with the fastest 50-foot, gasoline-driven express cruiser yet built, the "Shadow III," an ideal scout boat for locating unfriendly submarines along the well-nigh unprotected South Atlantic coast.

XUM

Photograph by Curtis and Miller

LUMBER CARRIERS AND THEIR CARGOES AT PORT BLAKELEY MILL, PUGET SOUND, WASHINGTON

Before the outbreak of the European conflict the days of the wooden barks, brigantines, and schooners seemed numbered, for steel ships were rapidly driving old-style vessels from the lanes of commerce. But the war has given the wooden ship a remarkable new lease of life, and our mills on both the Atlantic and Pacific seaboards are working 24 hours a day supplying the shipbuilders with the material needed to keep the American flag flying on the Seven Seas. The United States Government has ordered 1,000 wooden ships built with all haste to carry food and munitions to the British, French, Italians, and Russians.

is better to call out the full power of the people when the emergency comes than it is to keep them weighted down for 20 years in order to do one year's fighting. As a rule, people do one year's fighting out of each 20 years of their actual existence. We have done less, of course.

Which would you rather do—fight Prussia now, with France and England and Russia to help you, or fight her later, when she is foot-loose, by ourselves? You have got to do one or the other.

A whole lot of people tell me that the nations of the Entente are bound to win the war in Europe. I tell you they are not. I tell you that with that line, almost like a right-angle triangle, with a salient here, with Robert E. Lee behind that line, with a capacity to reinforce one part of it from the other, while the enemy has to go all around, he would win that war.

I tell you, furthermore, that the Italian barrier cannot be protected if there are enough German people put in, and when once it is broken France will be attacked upon the south—unfortified and undefended—on the Italian side.

I tell you, moreover, that if Germany does win that fight upon the Continent of Europe—with Belgium already a vassal State, Holland to become one, France likewise, by defeat—with all their forts and naval stations and shipyards open as well as her own, she will begin to get ready to whip us, unless England's fleet prevents it.

Now, Great Britain can, by sea-power, defend herself almost indefinitely—defend herself long enough for us to get ready to help her defend us. You can put it in your pipe and smoke it—this fact: whether you are going to fight Prussia now, with assistance, or whether you are going to fight her later, when we have no assistance, you have got to fight her.

THE OTHER NEUTRAL NATIONS

Then the Senator says that "the other neutral nations are not taking the course that we are taking." No; they are not. But why? There is Norway, the land of the free and the brave, and the true country whence the Normans came and whence almost all the blue blood of Europe's rulers came. Why does not Norway resent these insults? Oh, Mr. President, it is a sad and tragic thing; but Norway is too weak. Why does not Denmark act? Because her very hands are in the mouth of the mad dog.

Why does not Holland act? Again, because she dares not. German troops are lined across her border, ready to walk over her prostrate body as they walked over the body of Belgium; to shoot her civilians if they express sympathy for themselves against the German enemy; to burn down her schools, her libraries, and her cathedrals, as the Germans burned down those in Belgium. Holland is cowed.

A brave race are the Dutch. They faced Spain in its pride and power, with the help of England. They fought and died for liberty to speak and to worship. But, Mr. President, almost any people in the world, no matter how brave, now and then can be cowed and for a time act like whipped slaves. It is the most tragic and pathetic thing in all history when that happens either to a man or to a nation.

I have spoken of France; I have spoken of Great Britain. How about Russia? Up to a short time ago, so far as Russia is concerned, any animadversions that the Senator chose to make would have met with a good deal of sympathy upon my part; but once more I see a people throwing off their shackles, who have at last "declared" that they are free. Time will test the question whether they can prove that they are worthy to be free or not; but they have at least expressed the desire and the intention to be free, and, as a rule, where the desire and the intention go, the fact exists.

We have got to go into this war now, and we are going into it for all we are worth, for all our capital is worth, for all our bodies are worth, for all that we have and all that we are; and I, for one, hope that we will never make peace until the universal decree of the civilized world has gone forth to the effect that the Hapsburgers and the Hohenzollerns have ceased to reign.

The Hohenzollerns have been able; they have been efficient; they have been all that; but a race infected with the poisonous idea that it is ruling by divine ordinance is crazy.

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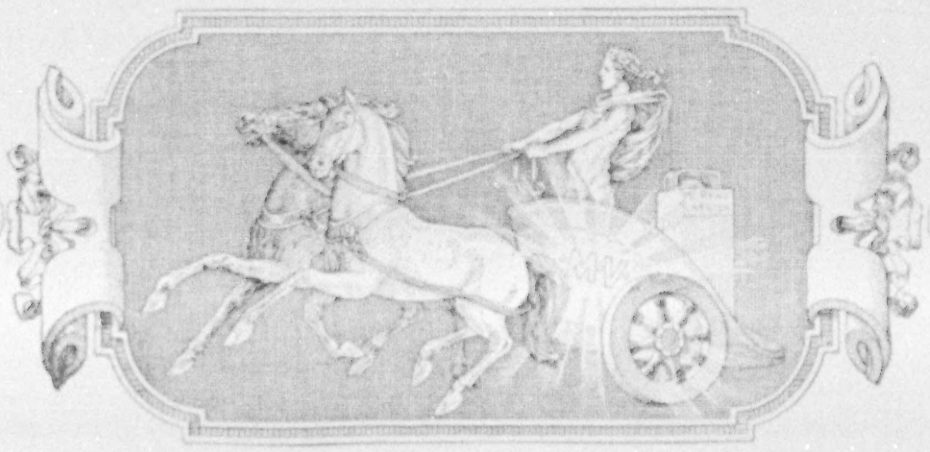

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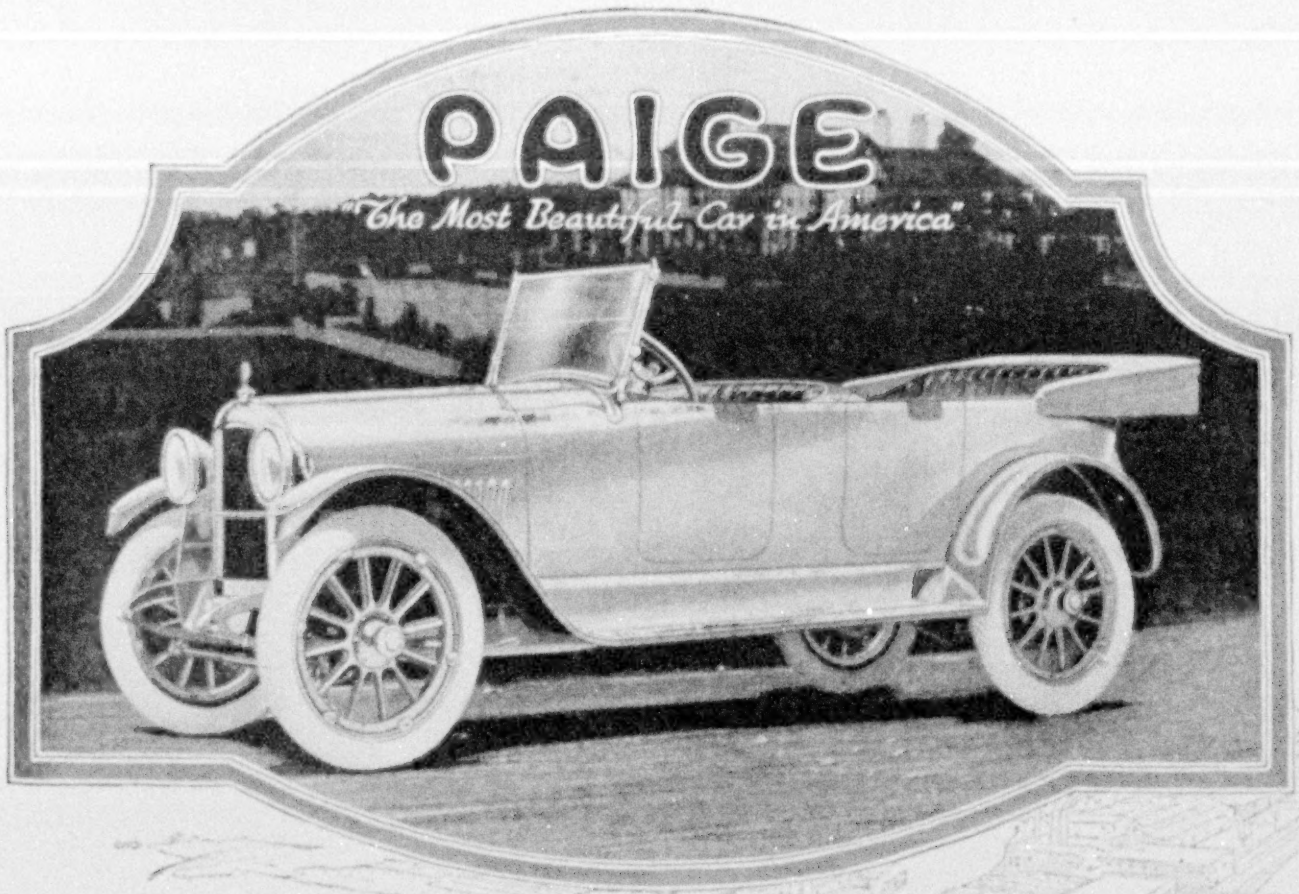

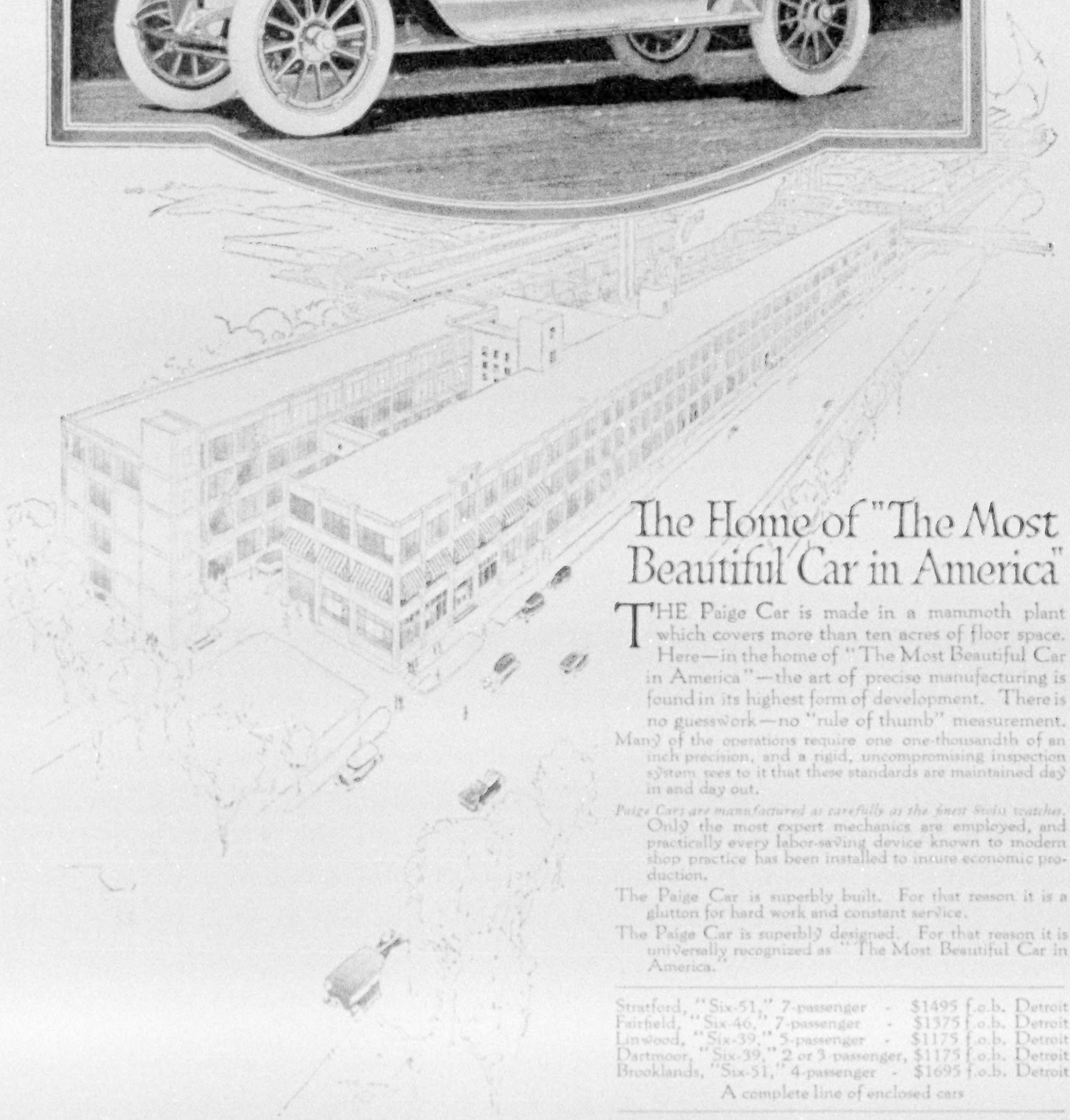

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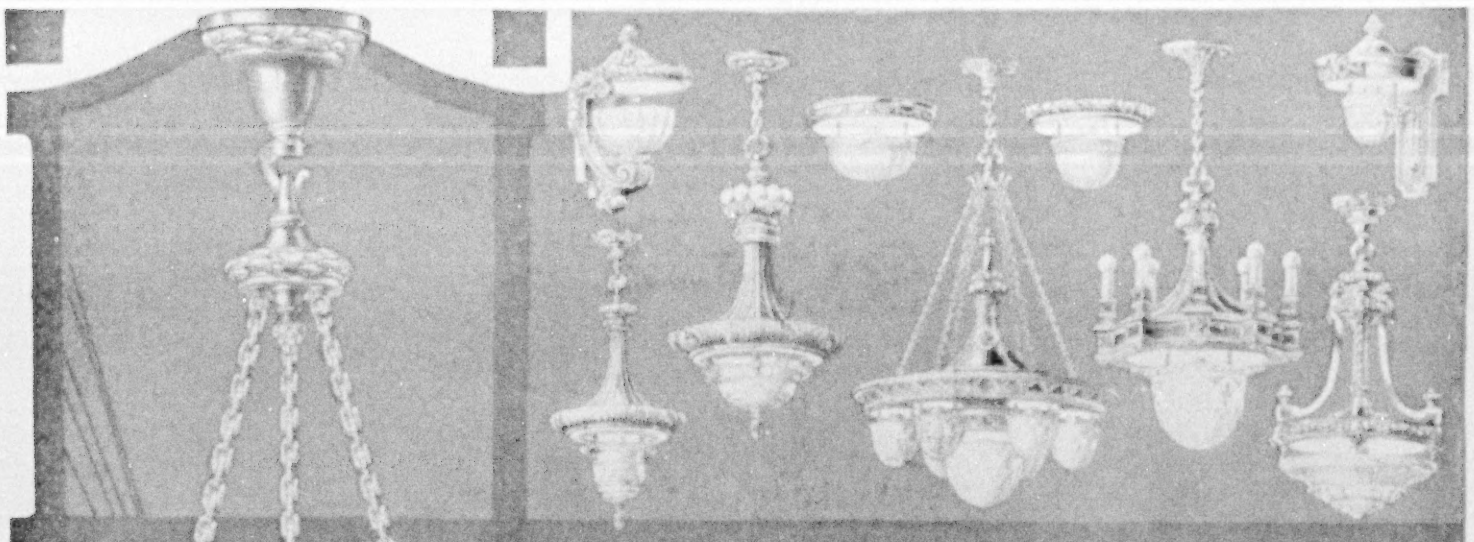

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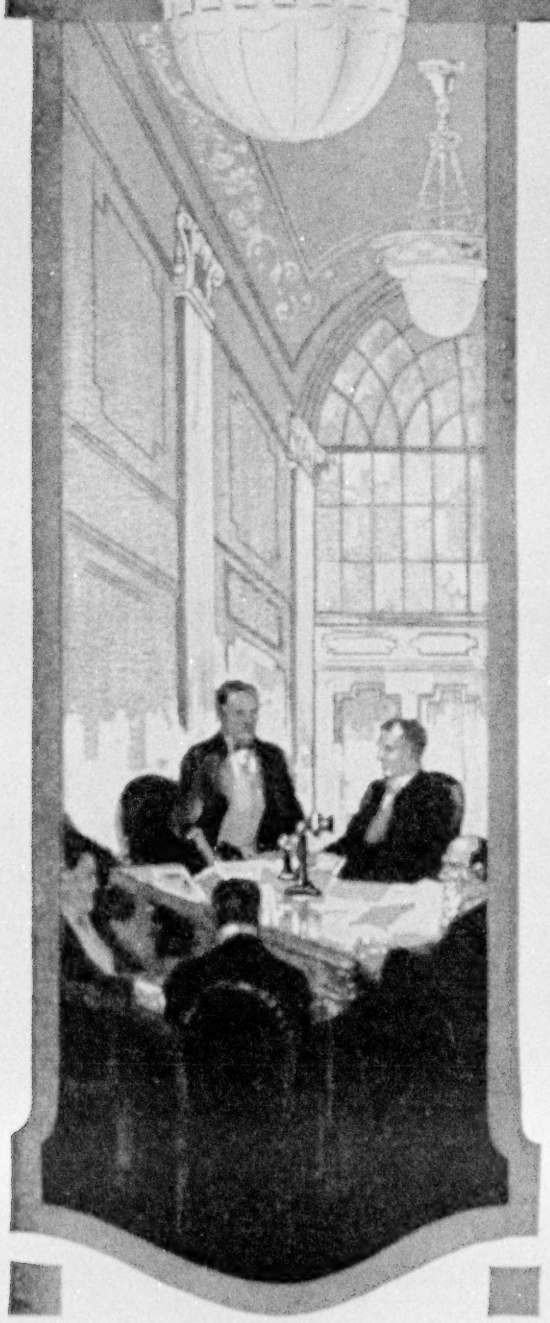

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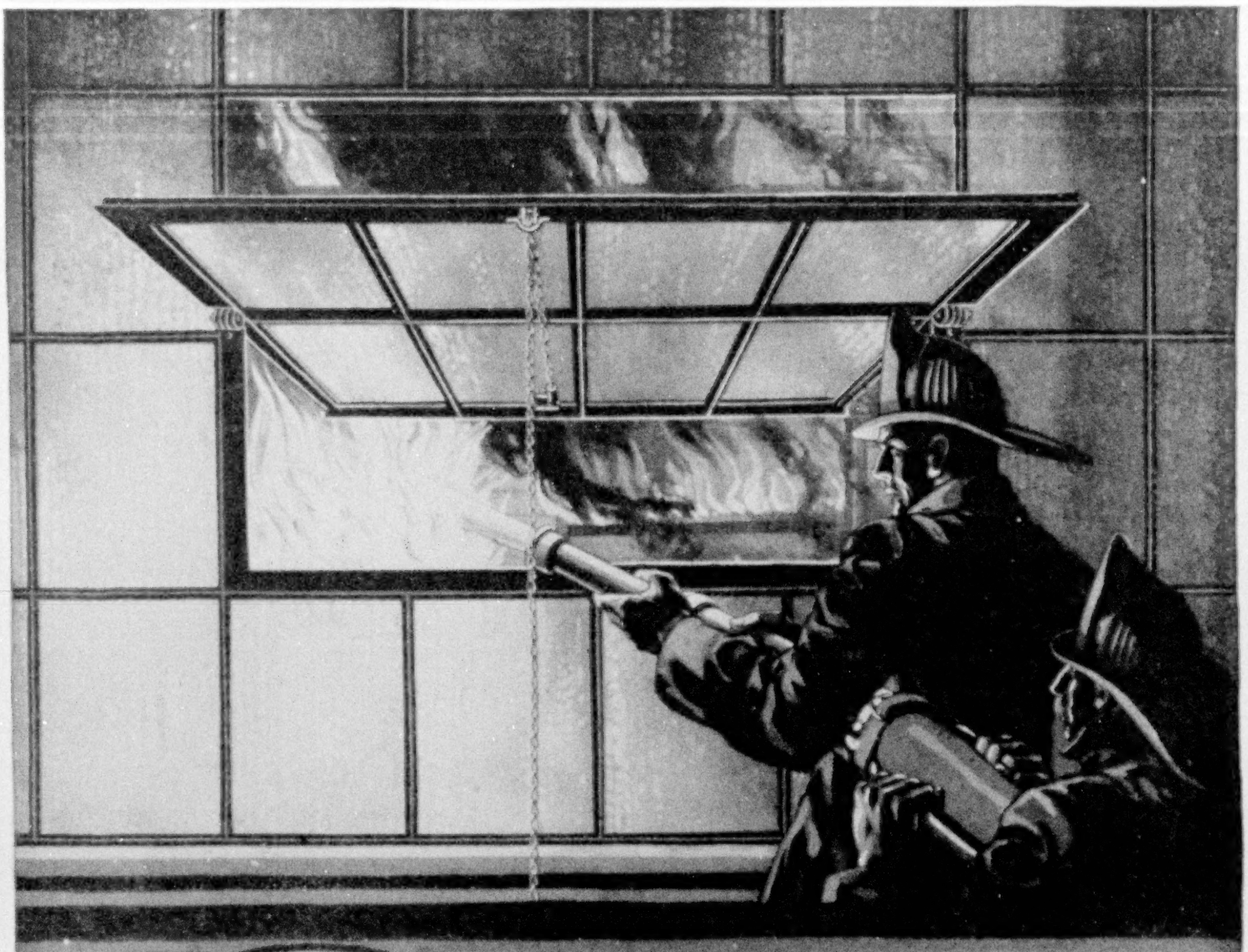

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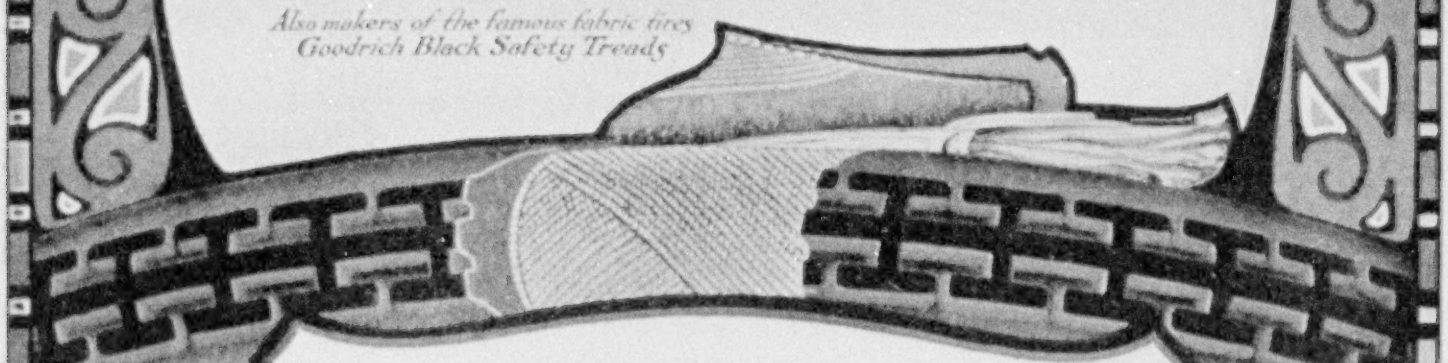

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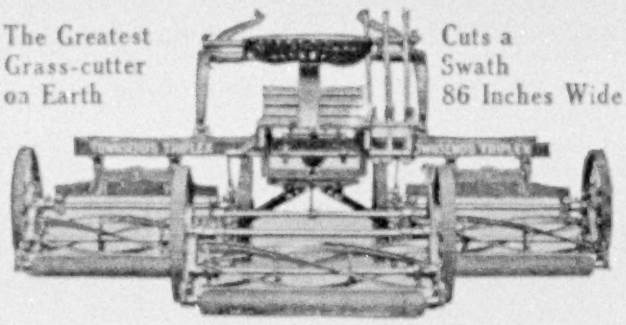

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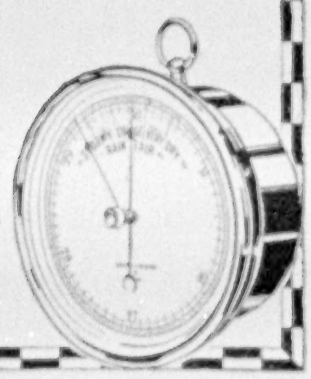

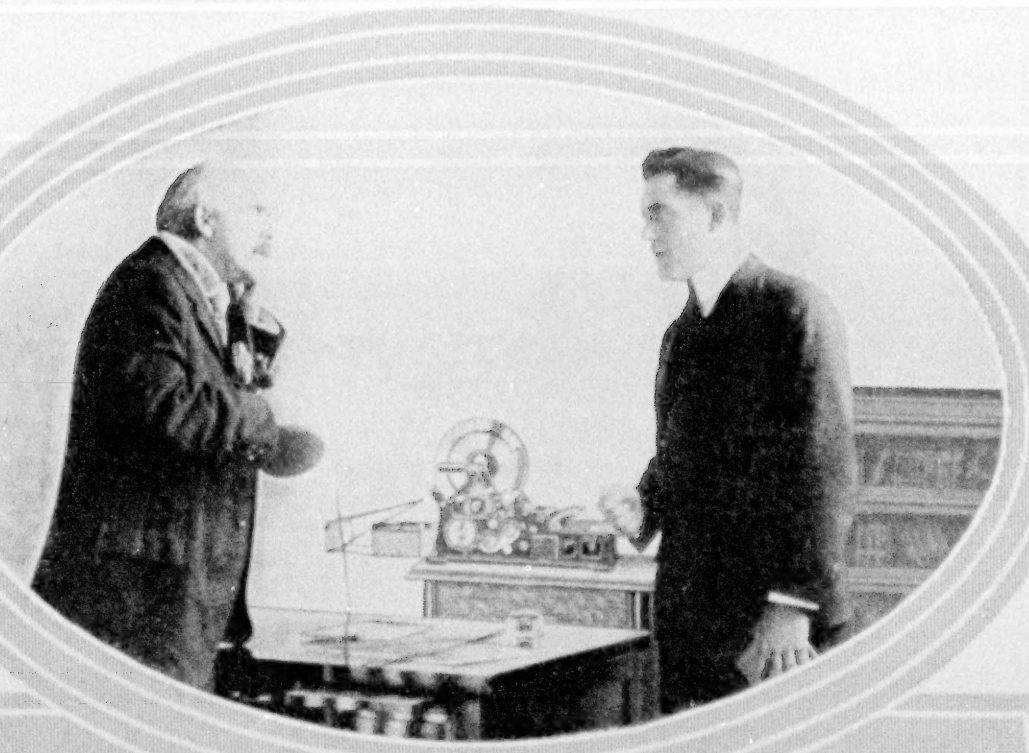

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AFTER ROLLING

Rolling packs moist soil back about the roots.

Step into the store where you see this sign in the window and ask for their free book on lawns. You will find they have lawn mowers, hose, grass seed, tools, and everything you need for lawn or garden. Ask them to show you the

DUNHAM Water Weight ROLLER

(TRADE-MARK)

By simply pouring water in the steel drum, the weight can be regulated to suit any condition—soft lawn, firm turf or tennis court. It can be quickly emptied for storing away.

Rolling is not hard work with this tool. The axle turns smoothly in steel roller bearings. The handle is held upright when not in use by a No Tip Handle Lock, and the scraper cleans all leaves and dirt from the drum.

Your lawn needs rolling *NOW*.

Fill with water to any desired weight.

THE DUNHAM CO., 205 First Ave., Berea, Ohio (Suburb of Cleveland)

Warehouse, 270 West St., New York City

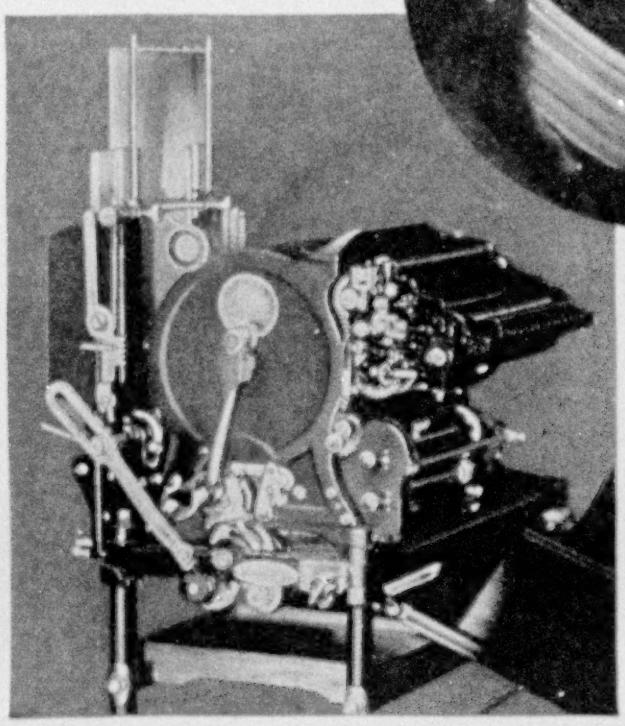
If your dealer hasn't the book, write us direct

Hot Pace and Cooling Heels

COOLING Heels travels for Jones.

He's better known in outer offices than sanctum sanctorums.

Jones believes neither in advance advertising nor home-office follow-up. Hence buyers know Cooling Heels merely as "a salesman for somebody." Both he and his line are a nonentity.



Hot Pace travels for Smith.

He's better known in sanctum sanctorums than outer offices.

Buyers give him the glad hand, because they know when he is coming and what he has to sell. To them he is "Hot Pace, of Smith." Both he and his line are established.

Exaggerated? No!

Every salesman who has traveled with a Multigraph introduction and left behind him a Multigraph follow-up knows the difference between the hot pace and the cooling heels—

Knows how smooth the road to the man who is expecting you; how easy the order when he knows the line—

Knows the "open sesame" that goes with Multigraph letters, folders, mailing cards before and after the call—

Knows how easy it is to set a hot pace on a Multigraph trail.

What pace do your men set on the trail of your business?

Have you Cooling Heels or Hot Paces representing you?

Think—act—mail the coupon!

Perhaps you've yet to strike the real stride in your business.

The Multigraph Senior, electrically driven and completely equipped for high-grade printing—with printers' ink, type, or electrotypes; or for producing typewritten letters in quantities.

Prices, $670 to $720. Hand-driven models, $175 up. Easy Payments.

You can't buy a Multigraph unless you need it.

THE MULTIGRAPH

Produces real printing and form-typewriting, rapidly, economically, privately, in your own establishment

The Multigraph,
1821 E. 40th St.,
Cleveland,
Ohio.

Show me how I can set a hot pace in my business.

Name

Official Position

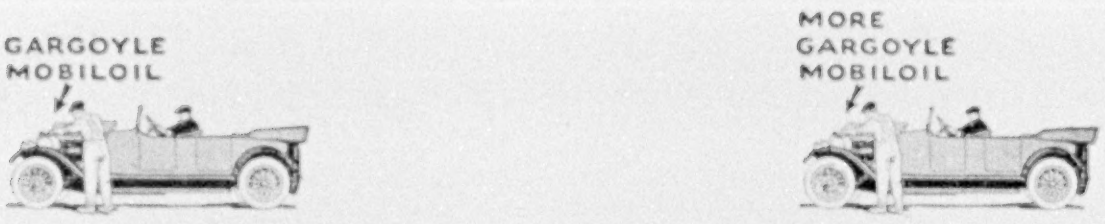
Firm

Street Address

Town State

"Mention the Geographic—It identifies you."

Oil Economy



This motorist pays a fair price for scientific lubrication.

This motorist pays less per gallon—but more per year.

YOU no doubt can tell about how much you paid for oil last year. And you know there is a cost difference per gallon between ordinary and scientific lubrication—Gargoyle Mobiloils.

But do you know this: Ordinary oil frequently costs *far* more by the year than Gargoyle Mobiloils.

Why?

Because poor lubrication immediately imposes two cash penalties:

(1) More oil per mile (frequently twice as much.)

(2) More gasoline per mile (frequently 10% to 20%.)

These two losses make oil which is cheap by the gallon—expensive by the year.

In effect you then pay the price of high-grade lubrication but secure only low-grade protection.

An Economical Demonstration

It will probably cost you less than $1.00 to fill your reservoir with the grade of Gargoyle Mobiloils specified for your car. The garage or dealer you trade with has it, or can promptly secure it for you.

Ask him to empty your reservoir of its present oil and fill it with the correct grade of Gargoyle Mobiloils.

You can then judge for yourself the results in gasoline economy and reduced oil consumption, to say nothing of reduced carbon deposit.

If your car is not listed in the partial Chart to the right, a copy of our "Correct Lubrication" booklet containing the complete Chart will be sent you on request.

GARGOYLE

Mobiloils

A grade for each type of motor

The four grades of Gargoyle Mobiloils for gasoline motor lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "E"
Gargoyle Mobiloil "Arctic"

Electric Vehicles—For motor bearings and enclosed chains use Gargoyle Mobiloil "A" the year 'round. For open chains and differential use Gargoyle Mobiloil "C" the year 'round. *Exception*—For *winter lubrication* of pleasure cars use Gargoyle Mobiloil "Arctic" for worm drive and Gargoyle Mobiloil "A" for bevel gear drive.

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. For information, kindly address any inquiry to our nearest office.

VACUUM OIL COMPANY

Rochester, N.Y., U.S.A.

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world.

Domestic Branches: Detroit, Boston, New York, Des Moines, Chicago, Philadelphia, Indianapolis, Minneapolis, Pittsburgh, Kansas City, Kan.

Correct Automobile Lubrication

Explanation: In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A." "Arc" means Gargoyle Mobiloil "Arctic," etc. The recommendations cover all models of both pleasure and commercial vehicles unless otherwise noted.

Model of	1917		1916		1915		1914		1913	
CARS	Winter Below 32°	Summer Above 32°	Winter Below 32°	Summer Above 32°	Winter Below 32°	Summer Above 32°	Winter Below 32°	Summer Above 32°	Winter Below 32°	Summer Above 32°
Abbott-Detroit	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (8-cyl)			A	A	A	A				
Allen	A	Arc	A	Arc	A	Arc	A	A	A	A
" (Mod. 33-34-35)					A	Arc				
Apperson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8-cyl)	A	A	A	A						
Auburn (4-cyl)			A	Arc	A	Arc	A	A	A	A
" (6-cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Autocar (4-cyl)	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Avery			A	A	A	A	A	A	A	A
" (Mod. 58 C) (6-cyl)			Arc	Arc	Arc	Arc	Arc	Arc		
Briscoe	A	Arc	A	Arc	A	Arc	A	Arc		
" (8-cyl)			A	A						
Buick	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	Arc
Cadillac							Arc	Arc	Arc	Arc
" (8-cyl)	A	A	A	A	Arc	Arc				
Case	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Chalmers			Arc	Arc	Arc	Arc	A	A	Arc	Arc
" (Mod. 6-40)			A	Arc						
" (Mod. 6-36)	A	A	A	A						
Chandler Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	A
Cole			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8-cyl)	A	A	A	A	A	A				
Cunningham					Arc	Arc	Arc	Arc	A	A
" (8-cyl)	A	A	A	A						
Dart	A	Arc	A	Arc	Arc	Arc	A	A	A	Arc
" (Mod. C)	A	Arc	A	Arc	A	Arc	A	A		
Delaunay-Belleville					B	A	B	A	B	A
Detroiter	Arc	Arc	Arc	Arc	A	Arc	A	A	A	Arc
" (8-cyl)					Arc	Arc				
Dodge	A	Arc	A	Arc	E	E				
Dort	A	Arc	A	Arc	A	Arc				
Empire (4-cyl)	A	Arc	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (6-cyl)	Arc	Arc	Arc	Arc						
Federal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Ford	B	A	B	A	B	A	B	A	B	A
Franklin	E	E	E	E	E	E	E	E	E	E
Grant	A	A	A	A	A	A	A	A	A	Arc
H. A. L.	A	Arc	A	Arc	Arc	Arc	Arc	Arc		
Haynes	A	A	A	A						
" (12-cyl)	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Hudson			Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" Closed Car	A	Arc	A	A						
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Jeffery	A	Arc	A	Arc	A	Arc	A	A		
" (6-cyl)	A	A	A	A	Arc	Arc				
" Com'l	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
Kearns			E	E	E	E				
" Com'l	A	Arc	A	Arc	A	Arc				
Kelly-Springfield	A	A	A	A	A	A	A	A	Arc	Arc
King			A	A	A	Arc	A	A	A	E
" (8-cyl)	A	A	A	A	Arc	Arc				
" Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Kissel Kar	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" Com'l	A	Arc	A	Arc	A	Arc	A	Arc	Arc	Arc
" (Mod. 48)			A	A	A	A	A	A		
Lexington	Arc	Arc	Arc	Arc	Arc	Arc				
Lippard Stewart	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod. M)	A	Arc	A	Arc						
Locomobile	E	E	E	E	E	E	E	E	Arc	Arc
Marmon	A	A	A	A	A	Arc	A	Arc	A	Arc
Maxwell	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Mercer	A	A	A	A	A	Arc	A	Arc	A	Arc
" (22-58)					Arc	Arc				
Mitchell	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Mitchell (8-cyl)			A	A						
Moline									A	Arc
" Knight	A	A	A	A	A	A	A	A		
Moon (4-cyl)					Arc	Arc	A	Arc	Arc	Arc
" (6-cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
National	Arc	Arc	A	Arc	A	Arc	A	A	A	A
" (12-cyl)	A	A	A	A						
Oakland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (8-cyl)			A	A						
Oldsmobile			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8-cyl)	A	A	A	A						
Overland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Packard					A	Arc	A	Arc	Arc	Arc
" (12-cyl)	A	A	A	A						
" Com'l	A	A	A	A	A	A	Arc	Arc	Arc	Arc
Paige					A	Arc	A	A	A	E
" (6-46)	Arc	Arc	Arc	Arc	Arc	Arc				
" (6-36-A 36)	A	Arc	A	Arc	A	Arc				
Peerless	Arc	Arc	Arc	Arc			Arc	A	Arc	
" (12-cyl)	A	A	A	A						
Pierce	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8-cyl)	A	A	A	A						
Pierce Arrow	A	A	A	A	Arc	Arc	Arc	Arc	Arc	Arc
" Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Pomeroy	A	A	A	Arc	A	Arc	A	Arc	A	Arc
Regal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8-cyl)	A	A	A	A						
Renault			A	Arc	A	Arc	A	Arc	A	Arc
Reo	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Richmond	Arc	Arc	Arc	Arc	A	Arc	A	Arc	Arc	Arc
Riker	E	E								
Saxon	E	E	E	E	E	E	E	E		
Selden	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Simplex	A	A	A	A	Arc	Arc	Arc	Arc	Arc	Arc
Stearns Knight	A	A	B	A	B	A	B	A	A	A
" (8-cyl)	A	A	B	A						
Sterling (Wisconsin)	A	Arc	A	Arc						
Studebaker	A	Arc	A	Arc	Arc	Arc	A	Arc	A	Arc
Stutz	A	A	A	A	A	A	A	A	Arc	Arc
Velie (4-cyl)					A	Arc	A	Arc	A	Arc
" (6-cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Westcott	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
White	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Wisconsin Knight	A	A	B	A	B	A	A	A		
Wisconsin Six	Arc	Arc								
Winton	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc

Sledge Hammer Blows!

THE biggest hammer that ever a blacksmith swung does not deliver a blow as heavy as those your tires get hundreds of times in a few miles of travel.

That cotton fabric and rubber can stand up under such punishment is remarkable when you think of it.

A blacksmith will tell you that the temper of steel can be spoiled by too much heat. Little wonder then that even a few degrees too much in the vulcanizing pits will ruin a tire by carbonizing the cotton. This results in a tire that cannot stand the pounding of daily service.

By the exclusive Miller method of vulcanization all the essential oils and wax are retained in the cotton fabric. The native toughness and resiliency of the rubber are kept intact. Both cotton and rubber are welded into a rugged mileage unit.

Miller
GEARED-TO-THE-ROAD TIRES

are never Spoiled in the making. They come to you brimful of mile muscle and with 100% power to resist and endure. The blows of the road affect them almost as little as the hammer affects the anvil.

Hundreds of thousands of motorists found Miller Tires to be faithful long-distance performers in 1916.

You, too, can establish mileage records and reduce your tire expense by equipping with Millers in 1917. For sale by distributors and dealers everywhere.

THE MILLER RUBBER CO.
AKRON, OHIO, U. S. A.

The scientifically designed GEARED-TO-THE-ROAD tread gives you assured traction under all conditions

Manufacturers of the famous "Miller Standard" line of Druggists' Sundries, Surgeon's Gloves, Balloons, Novelties, Etc.

THE · FRANKLIN · CAR

WHAT IS SCIENTIFIC LIGHT WEIGHT

PROGRESS is a fight, not so much against ignorance and stupidity as against the tendency of the *human mind* to run in *grooves*.

The great mass of motorists has never been able to look ahead in automobile construction. It reasons *backward* from what it sees close at hand.

It takes as long to get a wrong idea out of its head as to get a right one into it.

* *

At first, all fine automobiles were ponderous, heavy cars, complicated and expensive. It took the weight to justify the price.

Besides, that was the way men mostly thought about the automobile—a sort of Pullman-car feeling.

So the heavy car was what the average motorist saw close at hand. And reasoning backward, he built up a fine assortment of *fallacies:* such as, the heavy car was easier to ride in, that it kept the road better, that it made the owner more impressive, that there was virtue in the big wheel base.

Actual motor car *experience* shows up and *disproves* these *fallacies*.

Now the heavy car is going out of fashion.

If you doubt this you can prove it for yourself by going into any fine car salesroom. The automobile salesmen are very eager to tell you that their new models are considerably lighter than last year's, if that happens to be the case. But they say nothing about weight if their new car is heavier or the same weight as their former model.

But the average motorist cannot entirely free his mind from the old grooves.

He still looks for an eyeful of cumbersome car and mechanism. He still lingers over the big wheel base.

* *

For fifteen long years the motor world has fought each advanced principle in Franklin Car construction—and then finally come around to it!

Among fine automobiles the Franklin was the *first scientific* light car, and for fifteen years it has been the consistent exponent of *Scientific Light Weight*.

You may have noticed lately how many cars are making their appeal to the public on light weight.

Now, as an *enlightened motorist*—not one of the unthinking mass—you want to *discriminate* between a car that has had some of its weight chopped off to meet public demand and the one motor car in America that is today as it always has been—a *consistently* Scientific-Light-Weight car.

The Franklin construction calls for the finest materials that can be put into a car. The choice of materials is a special Department of Science in itself. The use of these materials is another—saving weight ounce by ounce all over the car.

The car that has *Scientific Light Weight* to offer you (not merely lightness) can show actual *results* in *facts* and *figures*—in gasoline mileage—in tire mileage.

It can demonstrate to you a new *comfort* and *reliability*, smooth-rolling quality, flexibility, easy control, a resiliency that saves not alone the expense but the *annoyance* of tire trouble.

In our next announcement we shall take up some actual results of Scientific Light Weight as proven by the Franklin Car.

Touring Car	2280 lbs.	$1950.00	*Cabriolet*	2485 lbs.	$2750.00	*Town Car*	2610 lbs. $3100.00
Runabout	2160 lbs.	1900.00	*Sedan*	2610 lbs.	2850.00	*Limousine*	2620 lbs. 3100.00
Four-passenger Roadster	2280 lbs.	1950.00	*Brougham*	2575 lbs.	2800.00	*All Prices F. O. B. Syracuse*	

FRANKLIN AUTOMOBILE COMPANY
SYRACUSE, N. Y., U. S. A.

The History of the Republic

The discovery of the Prōdium Process of compounding rubber is as momentous as was Republic's invention of the non-skid tire.

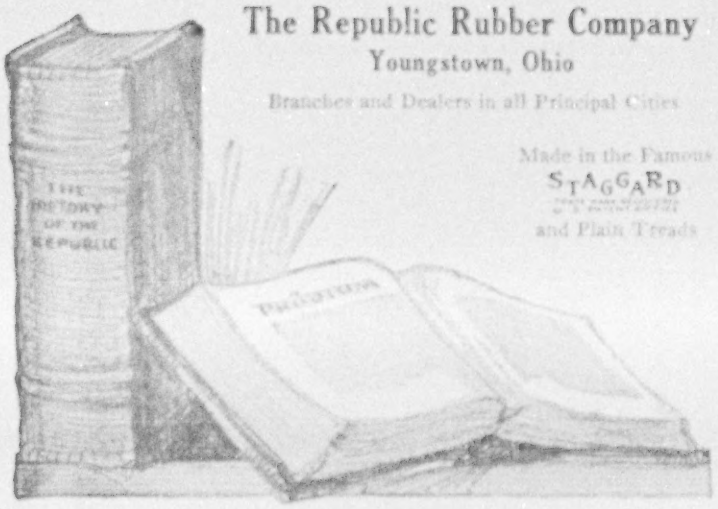
REPUBLIC PRŌDIUM PROCESS TIRES

Prōdium Process makes rubber wondrously tough, with much greater resistance to wear. It increases strength. A strip of Prōdium Rubber one inch square will support 3400 pounds.

It puts longer life into Republic Tires. Even after the Staggard studs are worn smooth, thousands of miles of service remain in the tire.

Send for a sample of Prōdium Rubber

Republic Black-Line Red Inner Tubes have a record free from trouble

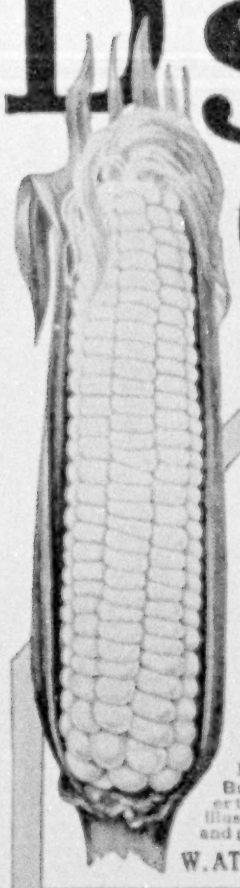


The Republic Rubber Company
Youngstown, Ohio

Branches and Dealers in all Principal Cities

Made in the Famous
STAGGARD
and Plain Treads

Burpee's Seeds Grow



Five of the Finest Fordhook Vegetables

For 25c we will mail one packet each of the following Vegetables unequalled in their class:

Bean—Fordhook Bush Lima, the most famous Bush Lima.
Beet—Black Red Ball, rich color, tender, fine flavor, early.
Corn—Golden Bantam, extra early, hardy, luscious and sweet.
Lettuce—Brittle Ice, large head, crisp and mild.
Radish—Rapid Red, quickest growing round red radish. Crisp and solid.

25c buys all the above. Five collections for $1.00, mailed to different addresses if so ordered.

As a Compliment to the Ladies, we include with each collection, a regular 10c packet of Fordhook Favorite Asters.

Burpee's Annual for 1917 is bigger and brighter than ever before. 204 pages. Thirty (30) varieties illustrated in color. Mailed free. Write for it today and please mention this publication.

W. ATLEE BURPEE & CO., Burpee Bldgs., Phila

Dreer's 1917 Garden Book

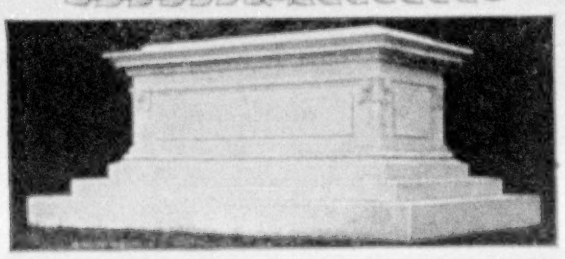
contains 288 pages, four color and four duotone plates, besides numberless photographic true-to-life reproductions. It lists all the standard varieties of flowers and vegetables, as well as the best of the season's novelties.

The newest Roses, the best Dahlias, and Dreer's Improved Hardy Perennials are given special prominence.

Mailed free to any one mentioning this Magazine.

HENRY A. DREER 714-16 Chestnut St. Philadelphia, Pa.

QUALITY



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Offices in principal cities. Write for Booklet 3.
HARRISON GRANITE COMPANY
200 Fifth Avenue, New York City Works: Barre, Vt.

PERSONAL SERVICE

"Mention the Geographic—It identifies you."

The new petite Verithin Gruen model. Prices $40 and up

One Word from a Woman's Lips

How it gave to this country its finest watch

BACK in the days when our grandmothers were girls, Romance began working changes in the watch making industry of this country.

Sailing over the sea came Dietrich Gruen, a brilliant young horologist, to visit a brother in America.

And here he fell in love. The word he won from his sweetheart's lips changed all his plans and made him decide upon America instead of Switzerland as the place to carry out his lifelong ambition to be a watch manufacturer.

A business built on ideals

Dietrich Gruen started his business with the ideal of giving America a watch of exceptional merit. But for its production his thoughts turned naturally to Switzerland, where from time out of mind the finest watches have been made.

There he gathered together a group of the finest craftsmen, and established his first factory for the production of watch movements, importing these movements and adjusting them to their cases in America.

About 1874 Dietrich Gruen conceived the idea of reducing the size of watches. He succeeded in producing the 16-size. For many years thereafter this was the popular size watch, and is the size made today by all watch manufacturers for railroad use, so that Dietrich Gruen may be said to have been the first railroad watch manufacturer in America.

A new ideal

Gruen saw that all watches were not only too large, but too thick. He determined that the Gruen watch should be the pioneer thin watch, as it had been the pioneer 16-size watch.

He began then a series of experiments toward that end, trying for a new principle that would enable him to secure watch thinness without cutting down the size and strength of parts.

The eldest of Gruen's three sons had grown up and been trained, here and abroad, in the watch-making skill of his race. This eldest son, Fred, now took up with his father the latter's ambition, and together they worked to realize it.

How they at last accomplished it is shown by the wheel train illustration below. In Europe and America the *Gruen Verithin* immediately took the lead as the thinnest accurate watch made—a position it has held ever since.

With cunning fingers the watchmakers of Madre-Biel, Switzerland, adjust and finish the machine-made parts by hand after the original model. In Cincinnati, located on "Time Hill," is the beautiful *American Service Plant and Gold Case Factory*, where the gold cases are made and the watches receive their final adjustments. Here, too, duplicate parts are kept always on hand.

The demand for these watches during the past seven years being greater than the production, obliges us to limit their sale through about 1,200 jeweler agencies, but those who want a watch for long service, a watch in whose accuracy and beauty they will always take pride, will find among the best jewelers in every locality one or two who are proud to display the Gruen agency signs, as shown here.

GRUEN
VERITHIN WATCH

Fixed Prices: $27.50 to $200; Ultra-thins, $165 to $250; Dietrich Gruens, $300 to $650. Highest perfection attainable in grades marked "Precision." If your jeweler cannot supply you, write us, naming model you are interested in, and we will arrange for you to see it. THE GRUEN WATCH MANUFACTURING CO., Dept. D, "Time Hill," Cincinnati, Ohio. "*Makers of the famous Gruen Watches since 1874.*" Factories: Cincinnati and Madre-Biel, Switzerland. Canadian Branch, Toronto, Canada.

What made the Verithin possible

XUM

IN THE DRIFTING STREAM of LIFE
the NATION'S HEROISM is PERPETUATED

EVEN so, in the drifting stream of life the memories held dear by rich and poor are perpetuated—in modest or pretentious form—by

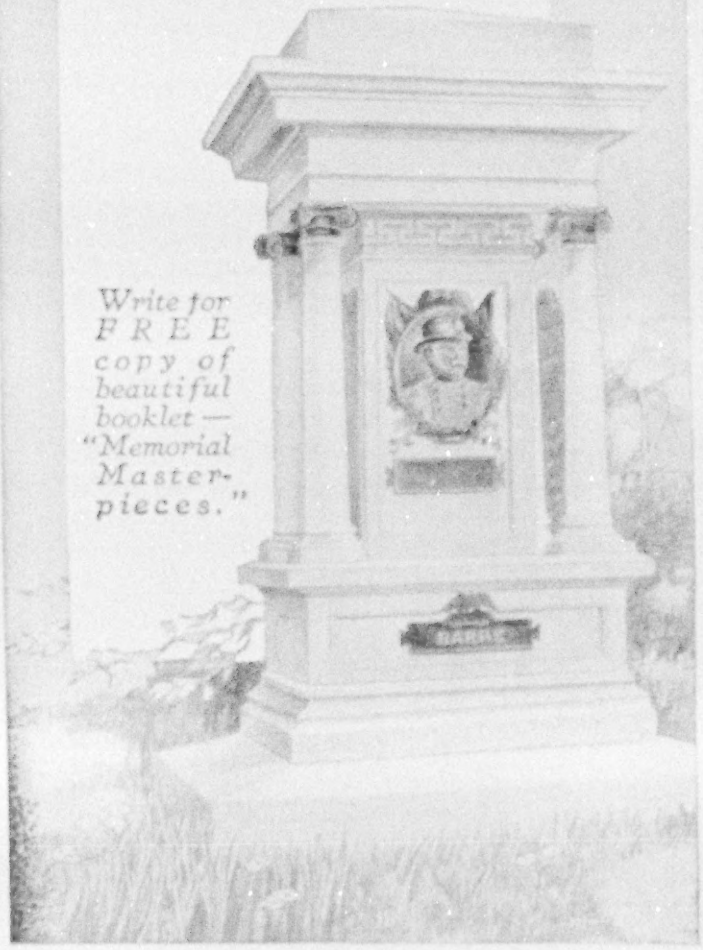
BARRE GRANITE

The Rock Beautiful and Everlasting

This is the monumental stone which has stood the test of time. The Rockefeller, Fleischman, Heinz, Schley, Armour, Tarkington, Potter Palmer, Anheuser, Leland Stanford and thousands of other memorials are cut from it. For a family or individual memorial of any kind or size, specify this dependable material.

Talk to your monument dealer about Barre Granite. See specimens of it in any cemetery.

BARRE QUARRIERS AND MANUFACTURERS ASS'N
Dept. B, Barre, Vermont
The Granite Center of the World



Write for FREE copy of beautiful booklet—"Memorial Masterpieces."

Farr's Hardy Plant Specialties

This new edition contains 112 pages of text matter, with 30 full-page illustrations (13 in color), and is more complete and helpful than any of its predecessors. It is a book that no reader of the National Geographic Magazine will wish to be without.

Some Special Features

In the Iris section there are many of my own seedlings, including the Panama-Pacific Gold Medal Collection; also notable new introductions from Europe.

Among the Peonies are a number of rare varieties which I have been unable to offer before, owing to limited stock. The fortunate purchase in France of a noted collection of Tree Peonies enables me to offer a unique assortment of over 300 varieties.

Lemoine's complete collection of Lilacs, Philadelphus, and Deutzias, with many of the new Chinese Barberries, Cotoneasters, and other introductions of Mr. E. H. Wilson, add to the value of this book.

If you are interested in gardening and would like a copy, it will be mailed to you on request

BERTRAND H. FARR
Wyomissing Nurseries Co.
110 Garfield Ave. Wyomissing, Penna.

JUDD & DETWEILER, Inc.
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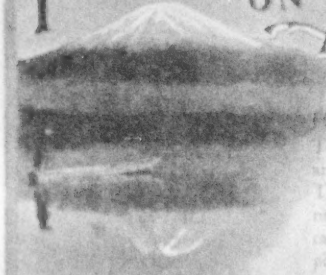

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Resinol Soap and Ointment are sold by all druggists. For a sample of each, free, write to Dept. 18-A, Resinol, Baltimore.

Resinol Soap

"Mention the Geographic—It identifies you."

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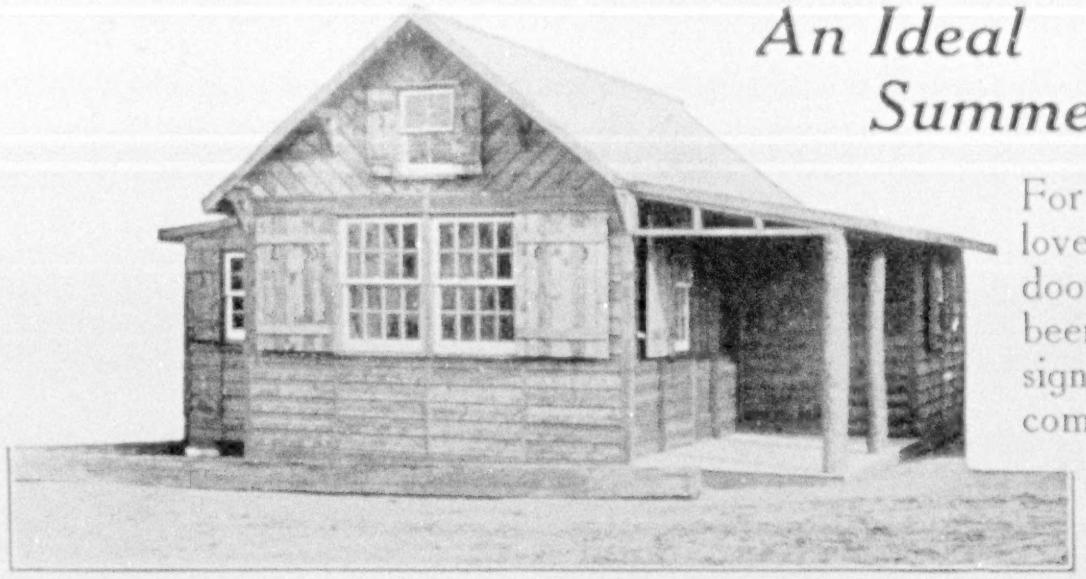

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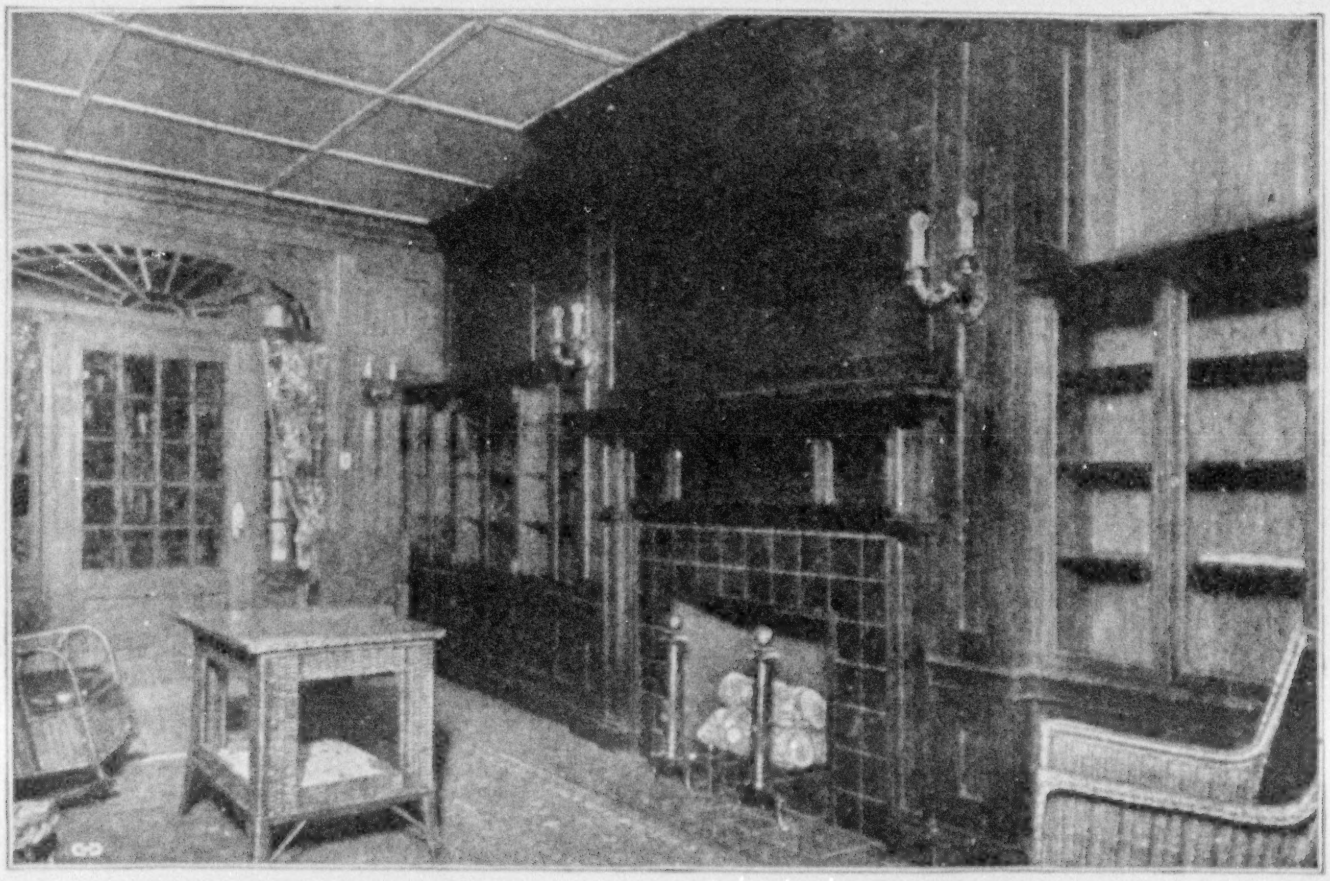

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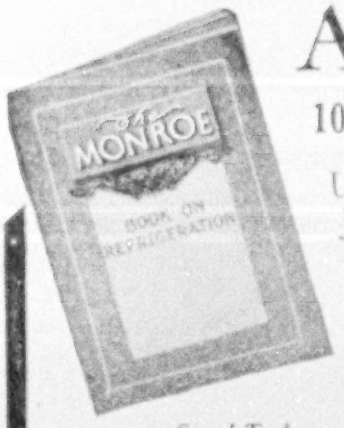

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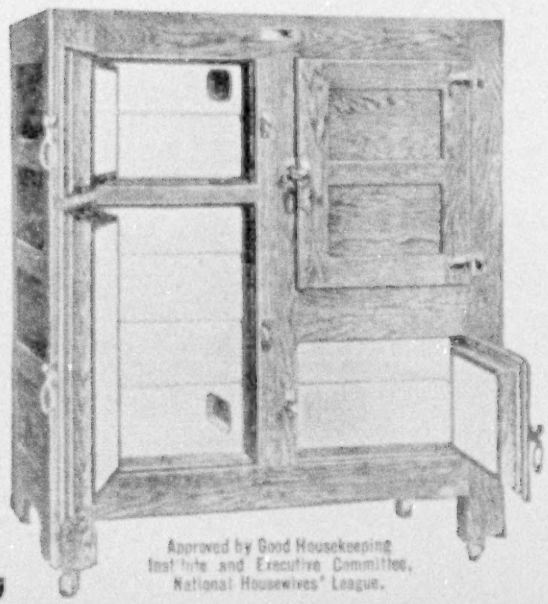

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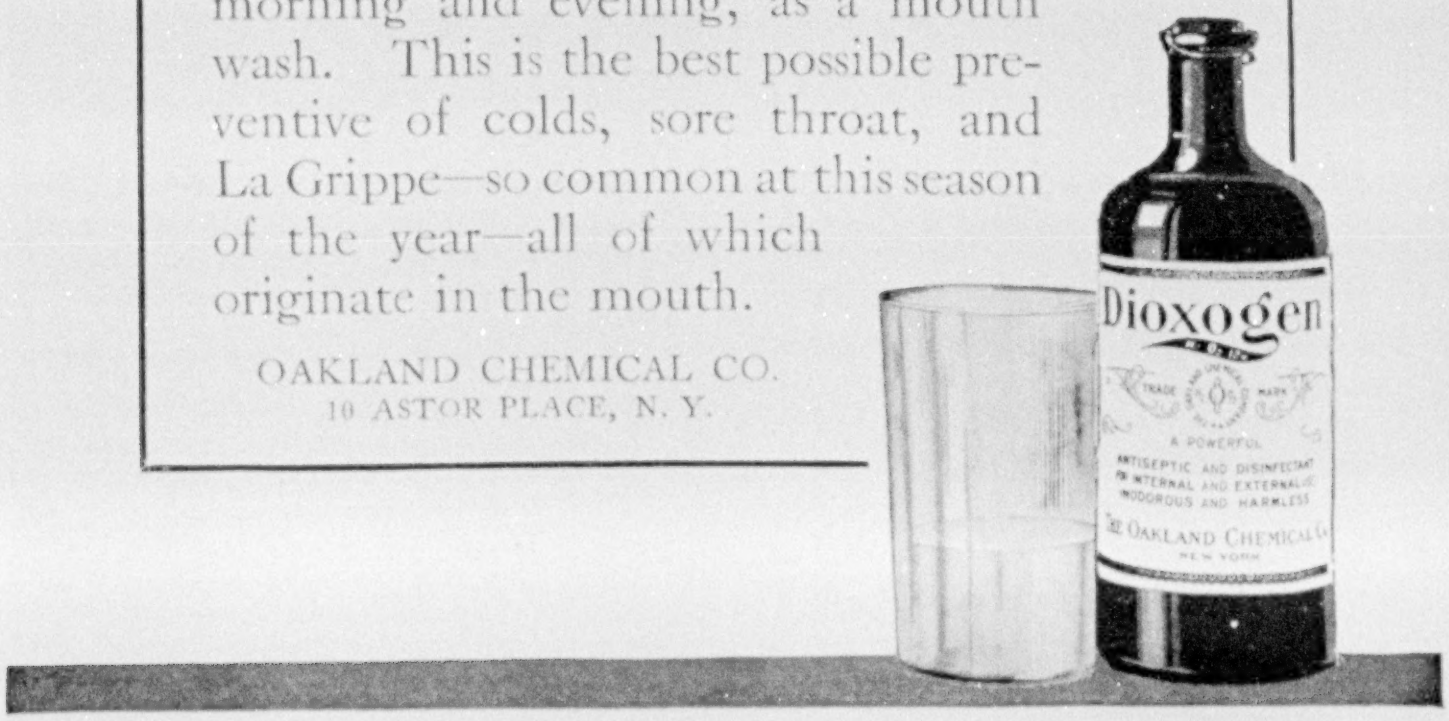

Pyrene

KILLS FIRE
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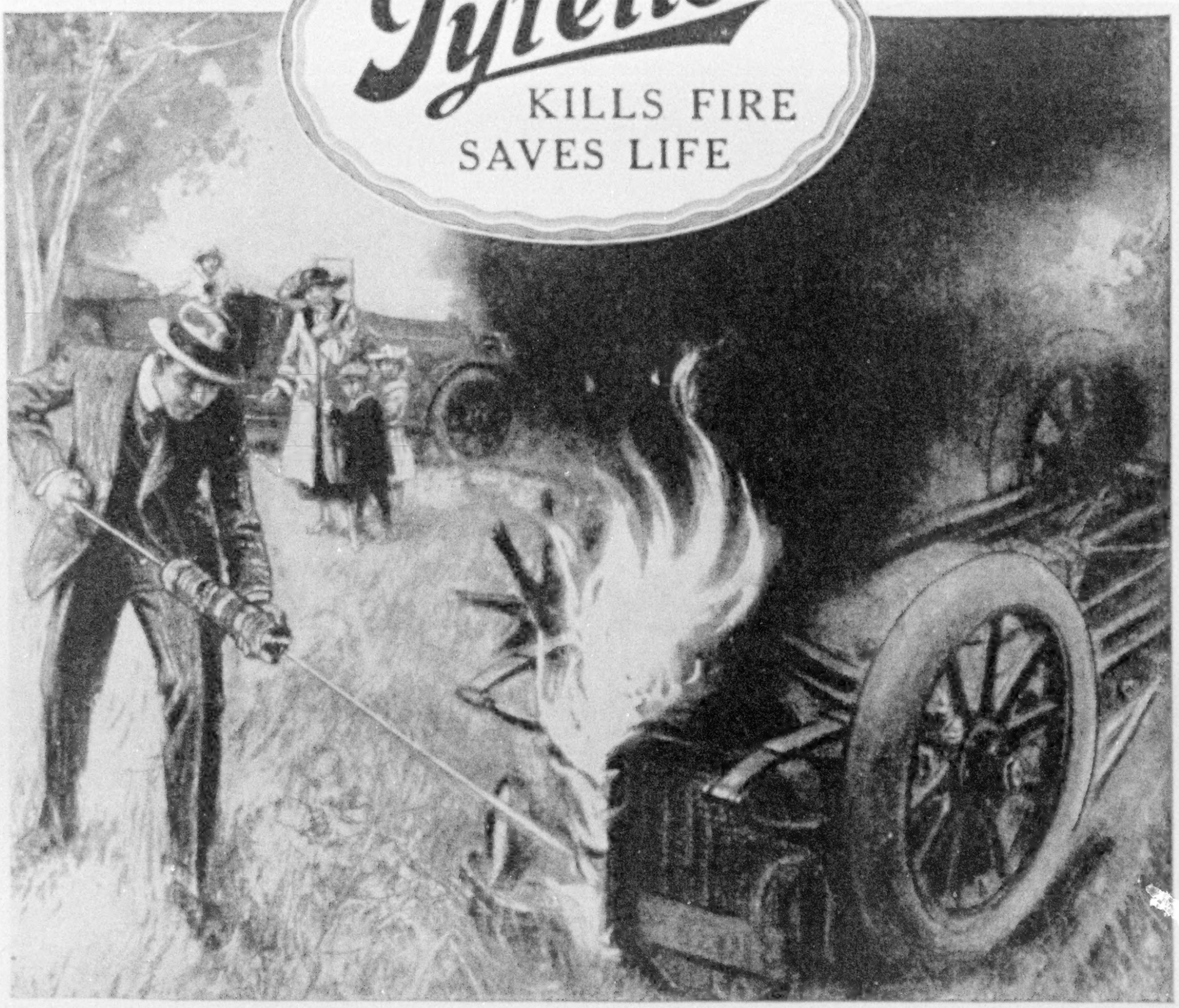

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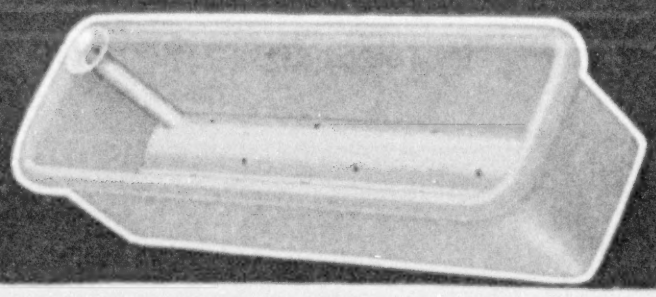

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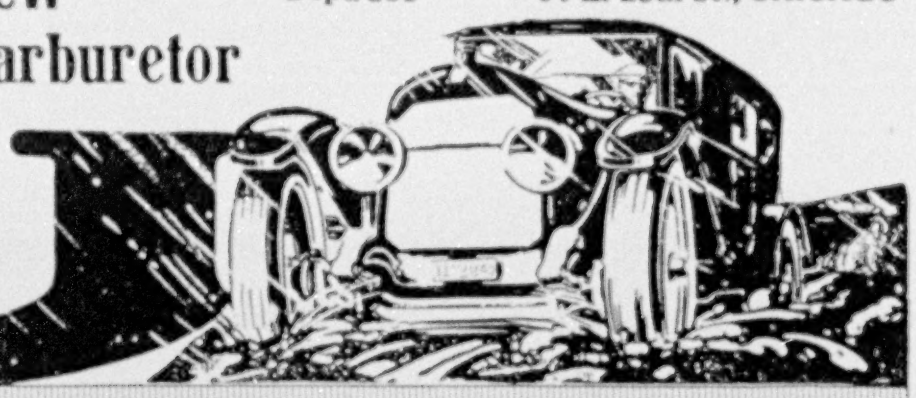

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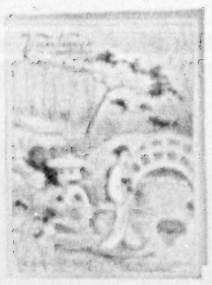

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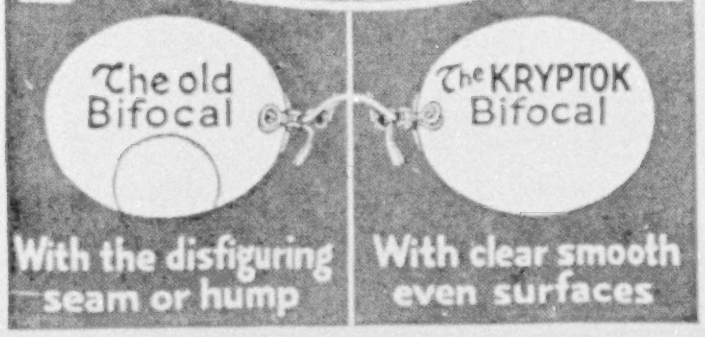

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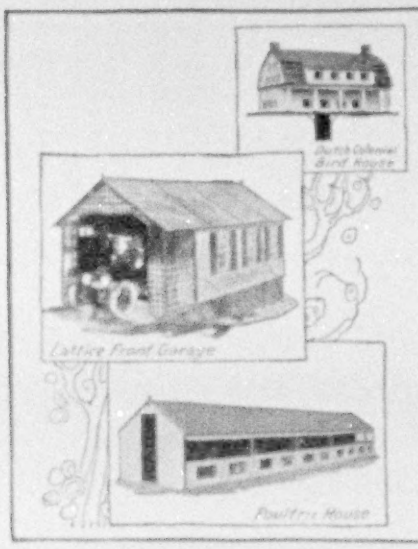

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